Canadian Petroleum Industry
1990 Monitoring Report

Annual

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The Honourable Jake Epp
Minister of Energy, Mines and Resources
Ottawa, Ontario

Dear Minister:

I am pleased to submit this report which describes the financial performance of the oil and gas industry in Canada during 1990. The report is based on data from 141 companies, accounting for some 90% of total revenues of the petroleum industry. Therefore, the data reflect fairly the performance of the entire industry in Canada.

Industry cash flow rose 10% to $9.9 billion and net income increased 81% to $2.4 billion in 1990 over 1989. The improved results in the second half of 1990 completely reversed the declines registered by the petroleum industry in the first half of the year. Supply fears resulting from the instability in Persian Gulf countries caused crude oil prices to fluctuate sharply and frequently, reaching record highs in October. The higher, if unstable, crude oil prices were reflected in improved net income and cash flow. Moreover, the rate of return on average capital employed increased to 5.1% in 1990 from 3.9% in 1989. By comparison, the rate of return for non–financial industry, excluding petroleum, was 5.8% in 1990.

Overall capital expenditures increased 9% to $8.6 billion in 1990 over 1989, an improvement compared to the 2% increase registered in the first six months of 1990. The improvement occurred, in part, as a result of substantial outlays on the Bi–Provincial Upgrader. In 1990, petroleum companies reinvested 86% of their cash flow, unchanged from 1989.

Respectfully submitted,

Pierre Camu
Chairman

July 8, 1991

New and Noteworthy

New information is presented in this Monitoring Report and, as in the past, it is crucial that the report be read with a number of caveats to which attention is drawn under "Noteworthy".

New

- Charts showing ten–years of data have been integrated into each chapter of the report to provide an historical perspective.

- Appendix E provides an analysis of the range of profitability reported within the upstream segment of the industry.

Noteworthy

- In 1988, a number of companies transferred assets to newly created entities (such as partnerships) in order to rationalize their operations and to adjust to changes in the tax system. For tax purposes, these companies elected more than one year–end. As the year–ends of the new entities extended into 1989, their results for income tax purposes were reported in 1989. This situation affected the reporting of current and deferred income taxes for book purposes. While the 1989 results indicated increased deferred taxes and reduced current taxes, the 1990 current taxes were very high, with corresponding reductions for deferred taxes as the process was reversed.

- As a consequence of Panarctic Oil Ltd.'s changed circumstances with respect to its business and exploration activities, the Company adopted the successful efforts method of accounting on a prospective basis effective January 1, 1989. Previously the activities of the Company were considered to be in the exploratory stage and all expenses, less recoveries from contract operations and revenue realized on sale of crude oil production, were capitalized.

As a result of this change the Company carried out an impairment review of the non–producing oil and gas properties which resulted in a provision for impairment of $262 million being recorded against earnings in 1989.

- There were a number of significant transactions in the petroleum industry in 1990. Among the most noteworthy were:

— Canterra Energy Ltd. sold assets in the Provost area to Silver Ridge Resources Inc.
— Nova Corporation of Alberta amalgamated two of its subsidiaries (Polysar Limited and Polysar Holdings Limited) to form NOVA Petrochemicals Inc.
— Mark Resources Inc. amalgamated with one of its subsidiaries, 413454 Alberta Inc. (formerly called Domtar Energy Inc.).
— Trical Resources Inc. and Voyager Energy Inc. amalgamated.
— Wellore Energy Inc. and 167428 Canada Inc. amalgamated into Cabre 1990 Ltd.
— Home Oil Company Limited acquired Esso Resources Canada Ltd.'s 23% interest of Leismar East Gas Unit #1.
— Bonanza Oil & Gas acquired the assets of SOPOC Petroleum Ltd. Both companies were subsidiaries of Poco Petroleums Ltd.
— Conwest Exploration Company Limited acquired a minority interest in Minerals Resources International Limited and Barons Oil Limited.
— Encor Inc. purchased oil and gas properties from Mobil Oil Canada, Ltd.
— Gulf Canada Resources Limited purchased the 22.8% share of Interhome Energy Inc. held by Imperial Oil Limited.
— Saskatchewan Oil and Gas Corporation purchased oil and gas assets from Gulf Canada Resources Limited.
— Intensity Resources Ltd. acquired Black Gold Oil & Gas Ltd.
— Esso Resources Canada Ltd. disposed of some assets. The acquiring parties included CS Resources Ltd., OMV (Canada) Ltd., Poco Petroleums Ltd. and Chevron Canada Resources Limited.
— Shell Canada Limited acquired certain assets from Amoco Canada Petroleum Company Ltd.
— Poco Petroleums Ltd. and Opinac Exploration Limited exchanged various oil and gas properties subsequent to a joint acquisition in 1989.
— British Gas PLC acquired Telesis Oil and Gas' parent Consumers' Gas Co. Ltd.
— North Canadian Oils Limited amalgamated with Bankeno Resources Limited.
— Superior Propane (a subsidiary of Norcen Energy Resources) acquired U.S. based Skelgas Group.
— Total Petroleum (North America) Ltd. acquired substantially all the assets of Amoco Canada Petroleum Co. and Amoco Canada Resources Ltd. in the Josephine area of Alberta.
— DeKalb Energy Canada Ltd., DeKalb Petroleum Corporation's Canadian subsidiary, swapped oil and gas properties in Alberta with Shell Canada Ltd.
— Placer Dome Inc. sold all oil and gas assets held by Placer CEGO Petroleum Holdings Ltd. to Opus Acquisition Corp.
— Conoco Canada Limited acquired all of Petro–Canada Inc.'s interests in the Peco, Edson and Minehead fields.
— Poco Petroleums Ltd. purchased Amoco Canada Petroleum Company Ltd.'s and Encor Inc.'s interests in the Sturgeon Lake South area of Alberta.
— Spur Oil Ltd. amalgamated with Murphy Oil Company Ltd.
— BP Canada Inc. sold its interests in nearly 400 Canadian oil and gas properties to Star Oil and Gas Ltd.
— Imperial Oil Limited sold properties to Texaco Canada Petroleum Limited and Mission Energy Company.
— Amerada Minerals Corporation of Canada Ltd. changed its name to Amerada Hess Canada Ltd.
— Numac Oil & Gas Ltd. amalgamated with Giant Reef Petroleum Limited.
— American Eagle Petroleum Ltd. acquired Esprit Resources Ltd.; amalgamated with Oracle Resources Ltd.; and sold assets to an unnamed party.
— Amoco Canada Petroleum Company Ltd. sold its Twining oil and gas properties to Claude Resources Inc. and Beau Canada Exploration Ltd.; and certain assets to Aberdeen Petroleums Limited, Shell Canada Limited and Poco Petroleums Ltd.
— Bowtex Energy Ltd. and Strand Oil & Gas Ltd. amalgamated to become Bowtex Energy (Canada) Corp.

— Ranchmen's Resources Ltd. acquired substantially all of the oil and gas assets of Bralorne Resources Limited.
— Turbo Resources Limited changed its name to Canadian Turbo Inc.
— A group led by Ranger Oil Ltd. and Czar Resources Ltd. acquired properties from Chevron Canada Resources Limited.
— Paragon Petroleum Limited, PPC Oil & Gas Corp. and Alterio Resources Limited merged, resulting in the creation of Paragon Petroleum Corporation.
— Denison Mines Limited disposed of its oil and gas assets.
— LASMO Canada Inc. acquired Esso Resources Canada Ltd.'s 16.2% interest in Nipisi Gilwood Unit No. 1.
— North Canadian Oils Limited acquired Coseka Resources Limited.
— Novalta Resources Ltd. and Alberta Gas Chemicals amalgamated.
— Ultramar Canada Inc. purchased Texaco's downstream assets in Nova Scotia, New Brunswick and Prince–Edward Island.

• Appendix A1 'Year in Review' sets out in detail events worthy of note.

• Many numbers in the body of the report are rounded to improve readability. Percentage changes, however, are calculated on the basis of detailed figures shown in Appendix B.

• While 162 companies have reported to the PMA (see Appendix E), this report is based on data from 141 companies. Twenty–one small companies have been excluded due to the lack of comparable data for the preceding period.

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Summary and Highlights

General Economic Background

Canada's real Gross Domestic Product (GDP) grew at an average annual rate of 0.9% to $570 billion (1986 dollars) during 1990. Business fixed capital formation dropped by 3.6% to $110 billion. Real personal expenditures on consumer goods and services grew by 1.3% to $341 billion in 1990. Government investment rose by 8% to $15 billion while government current expenditures rose by only 3.9% to $111 billion. Imports increased 0.3% and exports grew by 3.5% above 1989 levels. The petroleum industry contributed 10.6% of Canada's real gross domestic product during 1990, up from 10.1% in 1989.

Inflation, as measured by the Consumer Price Index, increased during the current period at an annual rate of 4.8% against 5.0% in 1989. Unemployment increased from 7.5% to 8.1% as employment grew from 12.5 million to 12.6 million persons in 1990. The growth was insufficient to absorb fully new labour market entrants.

Financial Performance of the Petroleum Industry

Total Operations

- *Net income from total operations rose 81% or $1.1 billion to $2.4 billion in 1990 over 1989.* Higher overall revenues, lower interest charges and deferred income taxes more than offset higher feedstock costs and current income taxes.

- Total net income for foreign–controlled companies rose 61% to $1.4 billion in 1990 as higher net income was recorded for upstream activities, while net income was lower for 'other Canadian' and foreign operations. Net income for downstream activities rose only slightly. Net income for Canadian–controlled companies more than doubled to $1.1 billion due to increases for upstream and foreign operations which more than offset a decline in net income for downstream and 'other Canadian' operations.

- *The rate of return on shareholders' equity* for the total Canadian petroleum industry was 6.1% in 1990 against 3.3% in 1989. The five–year average rate of return for the period ending in 1990 decreased to 3.2% from an average of 3.7% for 1989. *The return on capital employed* by the Canadian petroleum industry in 1990 increased to 5.1% from 3.9% in 1989.

Upstream Operations

- *Revenues from upstream operations* rose 17% to $20.6 billion in 1990. The impact of lower crude oil production was more than offset by a higher realized crude oil price. In addition, a rise in the production of marketable natural gas together with slightly higher prices increased revenues. Upstream net income nearly tripled to $1.8 billion in 1990. The increase was due to higher crude oil prices, lower interest charges, and relatively small increases in operating costs and non–cash charges. The rate of return on average capital employed increased to 4.8% from 3% in 1989. Internal cash flow rose 24% to $8.1 billion.

Downstream Operations

- *Total downstream sales revenues* increased 15% to $32.4 billion as a result of the flow–through to consumers of increased cost of goods sold (which also includes refinery maintenance and operating costs), up 19%. *Net income* rose 1% to $930 million in 1990 from $925 million in 1989 as a stronger oil products segment just offset a weaker petrochemical business segment.

Net income for oil products operations rose 11% to $655 million in 1990 causing the return on capital employed to increase to 6.2% from 5.8% in 1989. Cash flow rose 8% to $1.4 billion in 1990.

Sources and Uses of Funds

Internal Cash Flow

- *Internal cash flow from total operations increased 10% to $9.9 billion* in 1990 as higher revenues and lower interest charges more than offset increased feedstock costs, operating costs and current income taxes. Cash flow increased in the upstream and foreign operations segments but decreased for 'other Canadian' operations. Downstream cash flow was unchanged from 1989.

Net External Sources

- *Net external sources of funds were $155 million in 1990 vs. $5.6 billion in 1989.* Repayments exceeded net new long–term debt by $525 million compared with net new long–term debt of $3.3 billion in 1989. New equity, net of repurchases, was $680 million compared with $2.2 billion in 1989.

Discretionary Uses

- In 1990, the industry increased its net capital expenditures by 11% to $8.6 billion. Dividend payments rose 22% from $1.4 billion to $1.7 billion. In 1990, the sale of assets to pay down long–term debt can be seen in the excess of 'All Other Sources' over 'All Other Uses'. The excess of 'All Other Uses' over 'All Other Sources' in 1989 resulted from the purchase of assets and takeover activity. The net decrease of working capital of $55 million in 1989 compared to a net increase of $560 million in the working capital position in 1990.

Capital Expenditures

- *Total Capital Expenditures* in 1990 increased 9% to $8.6 billion, with domestic expenditures increasing 8% to $8 billion and outlays abroad rising 22% to $655 million. Upstream spending, representing 74% of the total, rose 13% to $6.4 billion in 1990.

- *Exploration Expenditures in Canada* rose 4% to $2.6 billion in 1990, with expenditures increasing 14% in the provinces and decreasing 50% on Canada Lands. Expenditures on Canada Lands accounted for 8% of the total vs. 16% in 1989. Outlays by foreign–controlled companies were 7% lower in 1990 than in 1989, while those of Canadian–controlled companies were up by 15%.

- *Downstream Expenditures* declined 12% to $1.1 billion in 1990 over 1989. Decreased expenditures for refineries and marketing outlets more than offset increased spending on petrochemical plants.

Reinvestment Rates

- Net capital expenditures absorbed 86% of the industry's internal cash flow in 1990, unchanged from 1989. Upstream capital expenditures were 78% of cash flow, down 6 percentage points from 1989.

Dividends

- *Dividends increased 22% to $1.7 billion in 1990.* Dividends by Canadian–controlled companies rose 16% to $640 million for a payout rate of 61%. Payments by foreign–controlled companies increased 27% to $1 billion for a payout rate of 75%.

Comparative Performance: Petroleum and Other Industries

Net Income

- According to Statistics Canada data, the petroleum industry's net income from Canadian operations – exclusive of Crown corporations' results – increased 23% to $2.7 billion in 1990, compared with a 54% decrease to $14.5 billion for all other non–financial industries. The petroleum industry's net income for 1990 represented 16% of all non–financial industries' net income.

Capital Expenditures

- The petroleum industry's capital expenditures in Canada increased 5% in 1990 over 1989. Capital expenditures of non–financial industries, excluding petroleum, increased 2%. As a result, the petroleum industry represented 15% of total non–financial industries' capital expenditures compared with 14% in 1989.

Ownership and Control Trends

In 1990, Canadian ownership of the petroleum industry, based on upstream revenues, increased from 43.4% in 1989 to 44% while Canadian control rose from 39% to 40.9% in 1990. The changes were mainly due to the purchase of producing assets by Canadian–controlled companies in 1989 and 1990. Canadian ownership of upstream plus downstream revenues rose 0.8 of a percentage point to 45.7% in 1990, while Canadian control increased 2 percentage points to 38.1%.

Research and Development Activities

'In–house' R&D expenditures declined 1% to $186 million in 1990. Contract work performed by others totalled $124 million, up 19% from 1989.

1

Financial Performance

Total Operations: Net Income and Cash Flow

Petroleum industry revenues rose 15% to $58.4 billion in 1990 over 1989. Upstream revenues increased 17% as a result of higher crude oil prices registered in the last five months of 1990. Downstream revenues increased by 15% due to the flow–through to consumers of higher feedstock costs.

Net income from total operations rose 81% ($1.1 billion) to $2.4 billion in 1990 over 1989. Upstream profits almost tripled to $1.8 billion in 1990 due to higher crude oil prices and an extraordinary loss in 1989 resulting from a provision for impairment of non–producing oil and gas properties being recorded against earnings. Downstream profits increased 1% ($5 million) to $930 million as a result of a rise of 11% ($65 million) in the net income of the oil products segment which more than offset the fall of 17% ($60 million) in the petrochemical segment's net income from 1989 (Appendix B9). A loss of $340 million dollars in 1989 for 'other Canadian' operations compared with a loss of $415 million in 1990. This was mainly due to lower overall revenues, charges for workforce reductions and asset write–downs. Profits of foreign operations rose 59% ($55 million) to $145 million in 1990 over 1989.

Internal cash flow from all business segments increased $925 million (10%) to $9.9 billion. Higher overall revenues and reduced interest charges (down 3%) more than offset higher feedstock costs (up 20%), operating costs (up 9%) and current income taxes (up 134%) in 1990. While some of the increase in current income taxes was due to deferral of cash taxes from 1989 to 1990 following a corporate restructuring, the major part was due to increased profits resulting from higher crude oil prices.

Table 1.
Overview of Total Operations in billions of dollars[a]

	1989	1990	Change	%
Total Revenues	**50.7**	**58.4**	**7.7**	**15**
less:				
Operating Costs	11.9	13.0	1.1	9
Interest Expenses	2.5	2.5	–	–3
Non–income Taxes and Royalties	7.7	8.8	1.1	14
Other Cash Expenses	18.9	22.6	3.7	20
Current Income Taxes				
Federal[b]	0.7	1.3	0.6	89
Provincial	–	0.3	0.3	–
Internal Cash Flow	**9.0**	**9.9**	**0.9**	**10**
less:				
Write–offs[c]	6.9	7.2	0.3	5
Deferred Taxes	0.5	0.3	–0.2	–50
Net Income before Unusual Items	1.6	2.4	0.8	52
Extraordinary Items	–0.3	–	0.3	–
Net Income	**1.3**	**2.4**	**1.1**	**81**

Notes:
(a) Figures may not add due to rounding. See Appendix B1 for detail by operating segment.
(b) Federal Income Tax includes Large Corporations Tax.
(c) The components of 'write–offs' are non-cash charges and exploration and development expenditures charged to current operations.

Net Income by Sector

Net income for the petroleum industry rose 81% ($1.1 billion) to $2.4 billion in 1990 over 1989. While net income of Canadian–controlled companies more than doubled to $1.1 billion, that of foreign–controlled companies rose 61% ($520 million) to $1.4 billion. However, prior to extraordinary items, net income for both sectors rose by about 50%.

Canadian–controlled companies reported profit increases for upstream and foreign operations which more than offset net income declines for downstream and 'other Canadian' operations. The rise in overall revenues of 19% combined with smaller increases in operating costs, interest charges and non–cash charges more than offset increased feedstock costs (cost of goods sold) and, higher current and deferred income taxes. In addition, an extraordinary loss of $220 million in 1989 due mainly to the write–off of oil and gas properties did not recur in 1990. As a result, net income more than doubled to $1.1 billion in 1990. Cash flow for this sector increased 16% to $4.3 billion in 1990 over 1989 (Appendix B6).

Net income for *foreign–controlled companies* rose 61% in 1990. Higher net income was recorded for upstream and downstream activities, while net income was lower for 'other Canadian' and foreign operations. The impact of a 13% increase in overall revenues, lower interest charges and deferred income taxes offset increases in cost of goods sold, operating costs and current income taxes. Part of the increase in current income taxes, together with the decrease in deferred income taxes, was due to the deferral of cash taxes from 1989 to 1990 following a corporate restructuring. Cash flow increased 6% to $5.6 billion in 1990 over 1989 (Appendix B7).

Table 2.
Net Income by Sector and Segment in billions of dollars

	1989	1990	Change	%
Canadian–Controlled Companies				
Upstream	0.3	0.8	0.5	194
Downstream	0.3	0.3	–	–2
Other[a]	–0.1	–	0.1	–
Total Canadian–Controlled	**0.5**	**1.1**	**0.6**	**117**
Foreign–Controlled Companies				
Upstream	0.4	1.0	0.6	148
Downstream	0.6	0.6	–	2
Other[a]	–0.2	–0.2	–	–
Total Foreign–Controlled	**0.8**	**1.4**	**0.6**	**61**
Total Industry	**1.3**	**2.4**	**1.1**	**81**

Note:
(a) Comprises net income generated by foreign activities and 'other Canadian' operations. For more detail see Appendices A12, B6 and B7.

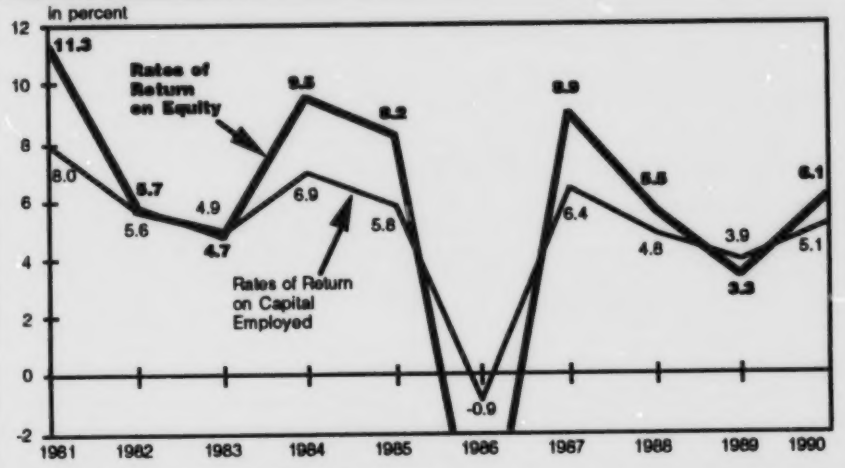
Rates of Return

Return on Equity

The rate of return on average shareholders' equity for the total Canadian petroleum industry was 6.1% in 1990 against 3.3% in 1989. Higher crude oil prices in the last five months of 1990 and lower interest charges were chiefly responsible for the increase in profitability. Canadian-controlled companies had a 5.6% return on equity while their foreign-controlled counterparts had a 6.5% return. However, the industry's average rate of return on equity for the five-year period ending in 1990 decreased to 3.2% from an average of 3.7% for the period ending in 1989 (Appendix A13).

Over the ten year period, the rates of return on equity and capital employed averaged 5.6% and 5% respectively. Both rates were considerably higher during the first half of the decade than the latter half which was strongly affected by the sharp downturn in 1986.

Chart 1.
Rates of Return: Petroleum Industry



Rate of return on equity extends to – 7.5 for 1986.

Table 3.
Rates of Return by Sector and Segment in percent

	Canadian-Controlled		Foreign-Controlled		Total Industry	
	1989	1990	1989	1990	1989	1990
Return on Equity						
Total Operations	2.5	5.6	4.0	6.5	3.3	6.1
Return on Capital Employed						
Total Operations	3.6	5.4	4.2	4.8	3.9	5.1
Canadian Operations	3.8	5.5	4.0	4.8	3.9	5.1
Upstream Operations	2.9	5.3	3.2	4.4	3.0	4.8
Downstream Operations(a)	4.6	5.0	6.6	6.8	5.8	6.2

Note:
(a) Downstream, in this table, represents oil products operations only, i.e. it excludes petrochemical and other downstream operations.

Return On Capital Employed

The return on average capital employed by the Canadian petroleum industry in 1990 increased to 5.1% from 3.9% in 1989. The return on capital employed averaged 3.9% for the five-year period ending in 1990 vs. 4% at the end of 1989. Upstream return on capital employed rose to 4.8% from 3% in 1989, while the downstream return increased to 6.2% in 1990 from 5.8% in 1989.

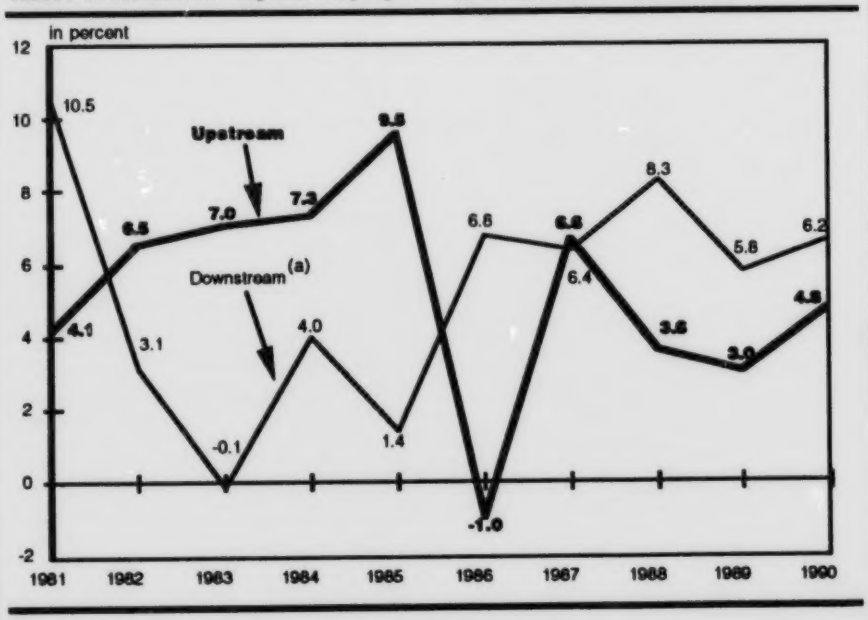
Foreign-controlled companies registered a 4.8% return on capital employed for total operations in 1990, up from 4.2% in 1989. The upstream segment of this sector saw its return on capital employed increase from 3.2% to 4.4% in 1990 while the downstream return rose from 6.6% in 1989 to 6.8% in 1990.

The *Canadian-controlled* sector's rate of return on capital employed was 5.4% in 1990, up from 3.6% in 1989. The rate of return on upstream capital employed was 5.3% vs. 2.9% in 1989. The downstream rate of return on capital employed increased to 5% in 1990 from 4.6% in 1989.

Over the ten year period, the average rates of return on capital employed were 5.1% for the upstream segment and 4.3% for downstream. The upstream segment fared better than the downstream segment during the first five years of the decade but the situation was reversed in the second half primarily due to the 1986 decline in upstream profitability and improved gross profit margins for oil products (Chart 2).

Chart 2.

Rates of Return on Capital Employed: Upstream and Downstream

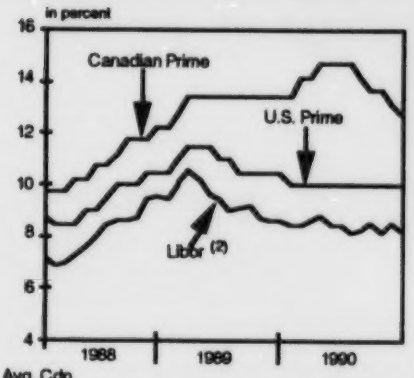


Note:
(a) Oil products operations.

Interest Coverage[1]

For the industry overall, income before taxes, extraordinary items and expensed interest was 2.6 times total interest charges, both capitalized and expensed, up from the 2 times coverage in 1989. This improvement in interest coverage was the result of a 27% increase in industry income before interest and taxes coupled with a 2% decrease in overall interest charges. The decrease in interest charges was due mainly to a reduction of long-term debt in 1990 when the proceeds from asset sales were used to pay down debt[3]. The impact of higher domestic interest rates was offset by lower foreign rates in 1990 compared with 1989.

Chart 3.
Interest Rates: Canadian and U.S. Prime Rates and Libor

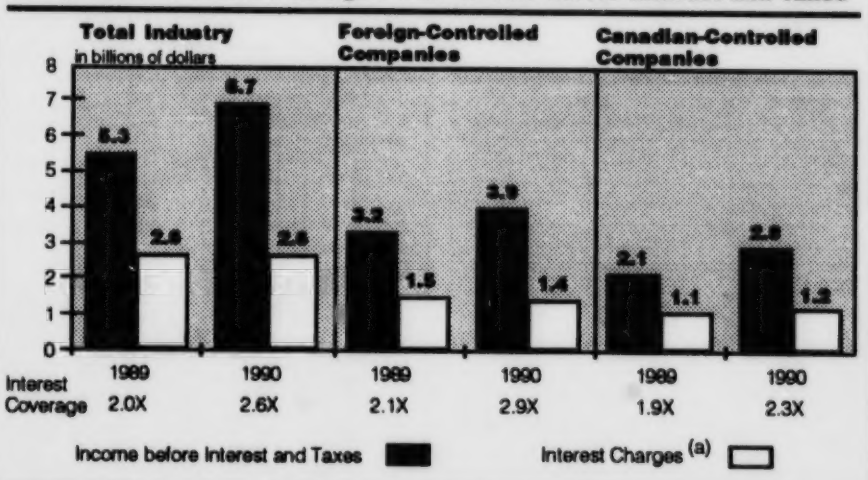


	1988	1989	1990
Avg. Cdn. Prime	10.83	13.33	14.06
Avg. U.S. Prime	9.40	10.88	10.00
Avg. Libor	8.13	9.41	8.46

Source: Bank of Canada

(1) This analysis of interest coverage relates to total industry activity since there is neither consistency nor uniformity in the way companies allocate interest expenses among the various business segments – upstream, downstream, other Canadian and foreign.
(2) The London Inter-Bank Offer Rate (LIBOR) is defined as the rate at which funds are offered in London to first-class international banks.
(3) 'Other long-term liabilities' increased as a result of a corporate restructuring that occurred in the latter half of 1990.

Chart 4.
Comparison of Interest Charges with Income before Interest and Taxes



Note:
(a) Interest charges shown include both expensed and capitalized amounts. See Appendix A18 for more detail. Deferred interest, which was significant for a number of foreign-controlled companies, is not included.

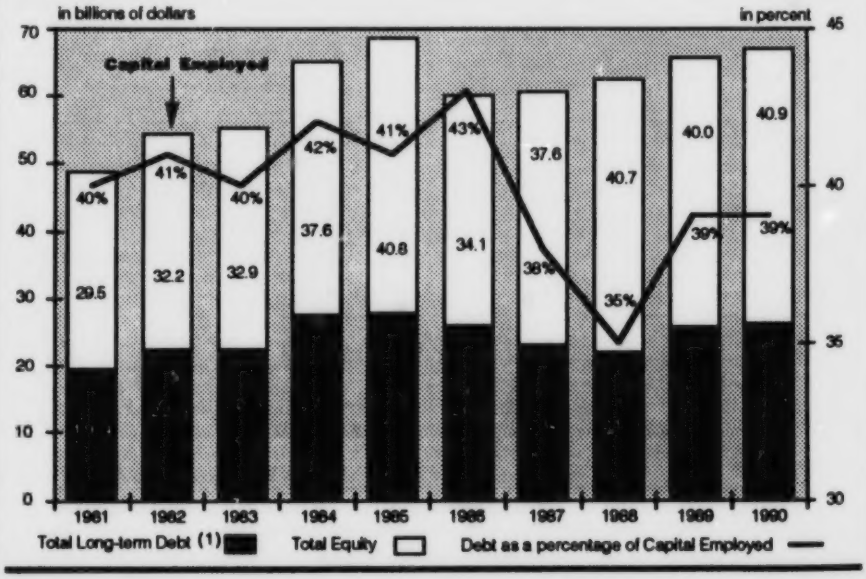
Net income before taxes and interest for Canadian-controlled companies was $2.8 billion in 1990 — up 31% from the level of $2.1 billion recorded in 1989. At the same time, interest charges increased by 11% to $1.2 billion, primarily caused by an increase in net new long-term debt used to purchase assets. Consequently, the interest coverage for this sector increased to 2.3 times in 1990 from 1.9 times in 1989.

Foreign-controlled companies' interest coverage rose to 2.9 times in 1990 from 2.1 times in 1989 as a 23% increase in income before taxes and interest compared with an 11% decrease in interest charges. The reduction in interest charges was due to the pay down of long-term debt following the sale of assets.

The ratio of long-term debt to capital employed has dropped considerably since its peak of 43% in 1986. Although the merger and acquisition activity continued during recent years, it was accomplished with more reliance on equity rather than on borrowed funds (Chart 5).

Long-term debt as a percentage of capital employed was 39% in 1990, unchanged from 1989. A decrease in long-term debt was more than offset by higher 'other long-term liabilities'. The latter resulted from a restructuring within an enterprise during the latter part of the year. Therefore, the transaction did not result in higher interest charges in 1990 (Appendix B13).

Chart 5.
Comparison of Long-Term Debt to Equity



(1) Includes other long-term liabilities.

Net Income by Company Group

Integrateds and Refiners

A total of 16 companies grouped in the category 'integrateds and refiners' make up almost the entirety of the downstream segment in terms of revenues, and account for 33% of upstream revenues. Net income for the group increased 27% or $305 million to $1.4 billion in 1990 over 1989. Higher net income, particularly from upstream but also from downstream activities, more than offset increased losses in 'other Canadian' and foreign operations. 'Other Canadian' operations were negatively affected by charges for workforce reductions (Appendix B2).

Over the years, integrated companies in this sector, having both upstream and downstream operations, have raised a considerable amount of debt for takeover activities and other purposes. The associated interest charges have been allocated to 'other Canadian' operations resulting in lower profits in this industry segment. Had the interest charges been distributed more evenly by industry segment, rather than as a corporate expense, net income for both upstream and downstream operations would have been lower. In addition, debt was also raised by other companies, solely downstream operators, for purposes of expanding and restructuring. The associated interest payments were allocated to the downstream activity.

Thus the increase from $275 million to $310 million in interest charges for the downstream segment was a reflection of the expansion and restructuring that occurred in the latter part of 1989.

Overall internal cash flow for this company group was unchanged at $3.7 billion in 1990 over 1989.

Oil and Gas Producers

The 125 'oil and gas producers' are active almost exclusively in upstream operations. Net income more than quadrupled to $1 billion in 1990 over 1989. While most of the improvement in profits resulted from higher crude oil prices, some improvement was due to an extraordinary loss of $150 million in 1989 vs. an extraordinary loss of only $20 million in 1990. Profit increases in upstream, 'other Canadian' and foreign activities more than offset the declines in the less important downstream operations.

The increase in the group's net income resulted from higher crude oil prices, lower interest charges and only small percentage increases in operating costs and non-cash charges. The increase in current income taxes was due to higher profitability and, to a lesser extent, to the deferral of cash taxes from 1989 to 1990 following a corporate restructuring. Internal cash flow rose 17% to $6.3 billion in 1990 over 1989 (Appendices B3 to 5).

Table 4.
Net Income by Company Group in billions of dollars

	1989	1990	Change	Change %
Integrateds and Refiners				
Upstream	0.7	1.0	0.3	61
Downstream	0.9	0.9	–	3
Other[a]	-0.4	-0.5	-0.1	–
Total Integrateds and Refiners	**1.1**	**1.4**	**0.3**	**27**
Oil and Gas Producers				
Upstream	–	0.7	0.7	–
Downstream	0.1	–	-0.1	-34
Other[a]	0.1	0.2	0.1	68
Total Producers	**0.2**	**1.0**	**0.8**	**370**
Total Industry	**1.3**	**2.4**	**1.1**	**81**

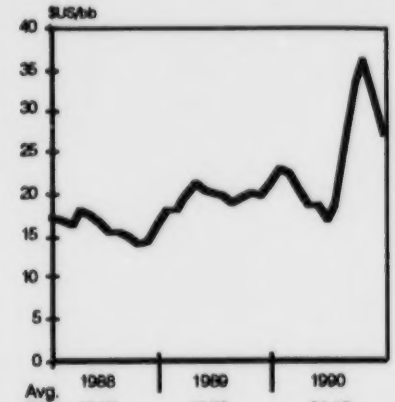
Note:
(a) Comprises net income generated by foreign activities and 'other Canadian' operations. For more detail see Appendices B2 and B5.

Upstream Segment

Revenues from upstream operations rose 17% ($3.1 billion) to $20.6 billion in 1990 (Appendix B1). The impact of lower crude oil production of 2% was more than offset by a higher realized crude oil prices[1] in 1990 resulting in a revenue increase for crude oil of $2.1 billion (Appendix B15). While production of conventional crude oil fell 4%, oil sands production rose 2% despite the damage done to the Syncrude plant following an explosion and fire in mid-December 1989. In addition, a 3% increase in the production of marketable natural gas coupled with a small increase in its price resulted in higher natural gas revenues of $235 million. Moreover, higher production and prices for gas plant liquids resulted in an improvement in revenues of $405 million. Sulphur revenues declined $50 million in 1990 over 1989 due to a reduction in international demand.

The average price received for crude oil (including production from oil sands) during 1990 was 23% higher than in 1989 — $148 per m^3 ($23.50 per bbl) vs. $120 per m^3 ($19.10 per bbl). The rise in crude oil prices was due largely to the uncertainty caused by events in the Persian Gulf in the last five months of 1990. Crude oil prices fluctuated sharply and frequently, reaching record highs in October. Prices for natural gas increased 1% in 1990 to an average of $54.60 per 10^3m^3 ($1.55 per Mcf) over 1989 (Appendices A4 and 5).

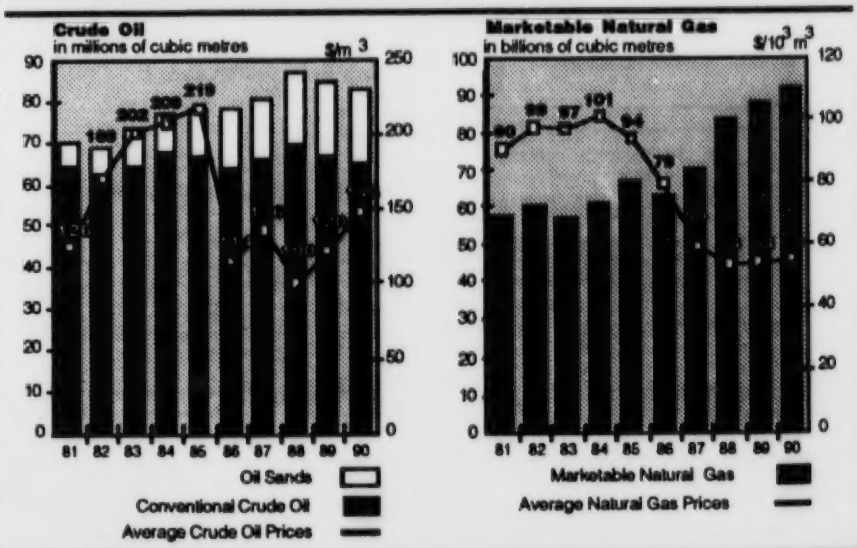
Chart 6.
Crude Oil Prices: West Texas Intermediate (WTI)



Source: International Oil Markets Division, EMR

(1) Crude oil and natural gas prices realized by Canadian producers are a reflection of the opposing influences of higher international prices and a stronger Canadian dollar relative to the U.S. dollar. International oil prices are generally quoted in U.S. dollars and, as the Canadian dollar strengthens, the Canadian dollar value of oil prices declines. However, the increase in the international oil price (Chart 6) more than offset the rise in the value of the Canadian dollar (Chart 8).

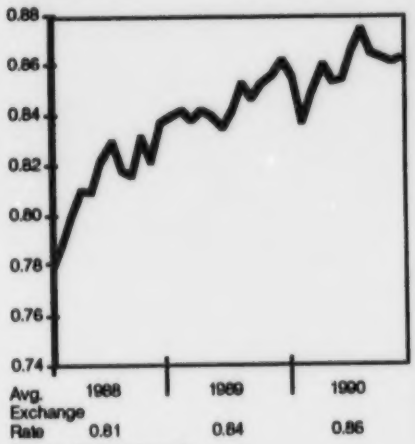
Chart 7.
Oil and Gas Production and Prices: 1981 - 1990



Upstream net income nearly tripled from $660 million in 1989 to $1.8 billion in 1990. The increase in net income resulted from higher crude oil prices, lower interest charges, and relatively small percentage increases in operating costs and non-cash charges. In addition, net income improved due to an extraordinary write-off of $175 million resulting from a provision for impairment being recorded against earnings in 1989 vs. an extraordinary write-off of $35 million in 1990.

Unit operating costs increased from $35 per m^3 of oil equivalent in 1989 to $37 per m^3 in 1990 partly as a result of increased costs for operating fractionation plants which are grouped with natural gas plants. Lower interest charges resulted from repayment of long-term debt following the sale of assets by a number of companies seeking to reduce debt and to rationalize operations. Current income taxes rose mainly due to increased profitability but also due to a deferral of cash taxes from 1989 to 1990 following a corporate restructuring. Internal cash flow for the upstream segment rose 24% ($1.5 billion) to $8.1 billion in 1990 over 1989 (Appendices B1 to 8).

Chart 8.
Exchange Rates: Canadian vs. U.S. Dollar



Source: Bank of Canada

Table 5.
Upstream Financial Performance in billions of dollars

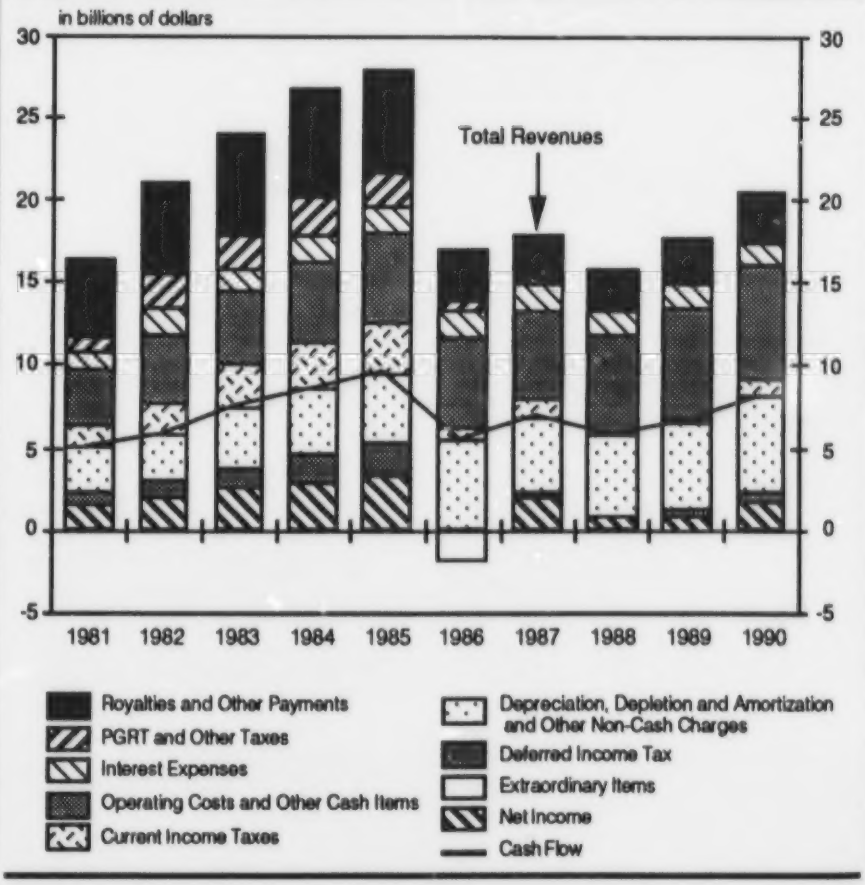
	1989	1990	Change	%
Total Revenues	**17.5**	**20.6**	**3.1**	**17**
less:				
Operating Costs	6.4	6.8	0.4	5
Interest	1.3	1.3	–	– 4
Royalties, Taxes	2.7	3.2	0.5	18
Other Expenses	5.4	5.9	0.5	9
Income Before Taxes	**1.6**	**3.4**	**1.8**	**109**
Current Taxes	0.4	1.1	0.7	207
Deferred Taxes	0.4	0.5	0.1	17
Net Income before Unusual Items	0.8	1.8	1.0	114
Extraordinary Items	– 0.2	–	0.2	–
Net Income	**0.7**	**1.8**	**1.1**	**167**

Canadian-controlled companies nearly tripled their upstream net income from $275 million in 1989 to $805 million in 1990. However, income prior to extraordinary items rose 74% to $800 million. The rise in net income was due to increased revenues resulting from higher crude oil prices. Higher revenues more than offset increased payments for royalties, interest charges, and current and deferred income taxes. Interest charges were higher as a result of increased borrowing in 1990 for the purchase of assets. Cash flow rose 30% ($790 million) to $3.4 billion in 1990 vs. 1989 (Appendix B6).

Foreign-controlled companies' upstream profits rose 148% ($570 million) to $950 million due to higher revenues, more than offsetting increased current income taxes. Cash flow increased 19% to $4.7 billion in 1990 over 1989 (Appendix B7).

During the decade, the petroleum industry's net income and cash flow were at their highest level in 1985. Lower crude oil and natural gas prices, rising interest charges and large asset write-offs caused net income and cash flow to decline after 1985. Substantial asset write-offs in 1986 resulted from the application of the new CICA guide for companies utilizing the full cost accounting measure.

Chart 9.
Upstream Income Data: 1981 - 1990



Downstream Segment

Oil Products Operations

Revenues from refining and marketing of oil products increased 14% to $28.6 billion in 1990 as a result of the flow through to consumers of higher feedstock costs (cost of goods sold) of 17%. Towards the end of 1990, the increase in prices was followed by a reduction in demand for petroleum products.

Net income rose 11% ($65 million) to $655 million in 1990 over 1989. However, net income prior to extraordinary items decreased 1% — an extraordinary loss of $70 million in 1989 which did not recur in 1990 affected positively the year-over-year comparison. Increased cost of goods sold (which also include refinery maintenance and operating costs) and higher overall expenses offset increased revenues to marginally reduce profits before extraordinary items. Interest charges rose from $220 million in 1989 to $305 million in 1990 as a result of increased borrowing following corporate restructuring and expansions by a number of companies.

Cash flow for oil products operations increased 8% or $105 million to $1.4 billion in 1990 over 1989 (Appendix B9).

Table 6.
Oil Products: Financial Performance and Profit Margins

	1989		1990		Change
	$ millions	¢/litre	$ millions	¢/litre	¢/litre
Gross Sales	24999	28.15	28620	32.80	4.65
Other Revenues	772	0.87	1016	1.16	0.29
Total Revenues	**25772**	**29.02**	**29638**	**33.96**	**4.94**
less:					
Federal Sales and Excise Taxes(1)	4860	5.47	5429	6.22	0.75
Cost of Goods Sold	15188	17.10	17839	20.44	3.34
Gross Profit Margins	**5724**	**6.45**	**6368**	**7.30**	**0.85**
less:					
Distribution, Selling and Administrative Expenses	3729	4.20	4109	4.71	0.51
Cash Flow before Interest and Current Taxes	**1994**	**2.25**	**2259**	**2.59**	**0.34**
Interest Expenses	220	0.25	307	0.35	0.10
Current Income Taxes	450	0.51	520	0.60	0.09
Cash Flow from Operations after Current Taxes	**1325**	**1.49**	**1432**	**1.64**	**0.15**
Depreciation and Other Non-Cash Charges	640	0.72	769	0.88	0.16
Deferred Income Taxes	24	0.03	9	0.01	-0.02
Extraordinary Items	-69	-0.08	2	-	0.08
Net Income after Extraordinary Items	**592**	**0.67**	**654**	**0.75**	**0.08**

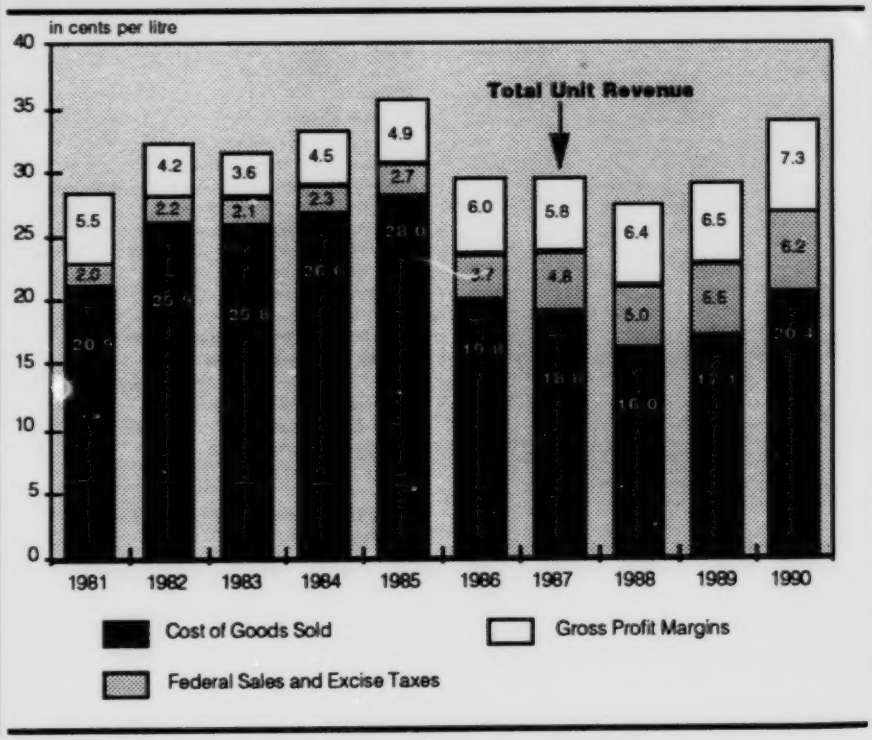
(1) On April 28, 1989, the excise tax on gasoline was increased by 1 cent per litre. An additional 1 cent per litre surcharge was placed on leaded gasoline. Effective January 1, 1990, there was a further increase of excise taxes of 1 cent per litre on gasoline.

Gross profit margins, defined here as the difference between average sales revenue, and direct taxes and cost of goods sold, increased to 7.3¢ per litre in 1990 from 6.5¢ per litre in 1989 (Appendices A8 and 21).

The gross profit margins for petroleum products gradually improved in the latter part of the decade. The average margin was 6.4¢/litre for the period 1986 to 1990 inclusive, vs. 4.5¢/litre for the first half of the decade. This improvement translates into an equivalent rise in the rates of return on capital employed, which averaged 6.7% in the last half of the decade, compared to 3.8% for the first half (Charts 2 and 10).

Average crude oil refiner acquisition costs by region and related transportation costs are shown in Appendices A6 and 7.

Chart 10.
Oil Products: Gross Profit Margins



Other Downstream Operations

Net income from other downstream operations, mainly petrochemicals, declined 17% ($60 million) to $275 million in 1990 over 1989. Despite higher revenues, increased feedstock costs and higher operating costs caused a decline in profits and cash flow. Internal cash flow fell 19% to $470 million (Appendix B9).

Total Downstream

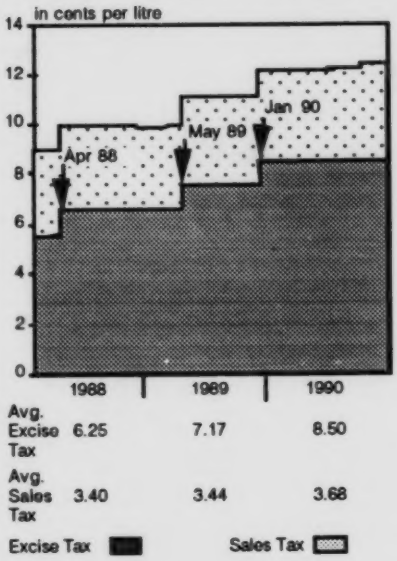
The combined revenues of petroleum products and petrochemical operations increased 15% to $32.4 billion. Combined net income rose 1% to $930 million in 1990 from $925 million in 1989 and cash flow was unchanged at $1.9 billion.

Other Canadian Operations

This business segment, which includes corporate income and expenses, recorded a net loss of $415 million in 1990 compared with a net loss of $340 million in 1989. Total revenues dropped 10% ($270 million), mainly due to reduced contract drilling activity. In addition, the operating costs and depreciation charges increased as a result of provisions for workforce adjustments and write downs of oil and gas properties. Against these negative factors, a number of companies reported large gains on the sale of assets, contrasting losses reported in 1989, and recaptures of deferred taxes in relation to the sale of assets and write-downs. Cash flow was minus $695 million in 1990 vs. minus $60 million in 1989.

In 1990 and 1989, sizeable corporate costs and intercompany profit eliminations occurred, resulting in negative current taxes. Also, as noted in previous Monitoring Reports, many companies treat financing activities, and thus interest expenses, as a corporate function – by definition included in 'other Canadian' operations. Although a large number of companies allocate interest charges to other segments, 33% of the industry's total interest expenses are charged to this segment which accounts for only 4% of total industry revenues.

Chart 11.
Federal Sales and Excise Taxes(1) on Regular Unleaded Gasoline



Foreign Operations

Net income from foreign operations increased 59% to $145 million in 1990 over 1989. A 32% increase in revenues together with a 5% decrease in non-cash charges more than offset increases in the various expense categories resulting in improved profitability. Foreign activities of Canadian petroleum companies are largely oil and gas production operations. Accordingly, the higher revenues reflected the same factors that applied generally to Canadian upstream operations. Cash flow rose 5% to $620 million (Appendix B1).

(1) Federal taxes on gasoline are made up of a sales tax, based on an ad valorem rate, and an excise tax which is not tied to the price of the product.

Table 7.
Downstream Financial Performance by Subsegment in millions of dollars

	Net Income			Cash Flow		
	1989	1990	Change %	1989	1990	Change %
Oil Products	592	656	11	1325	1432	8
Petrochemicals	332	274	– 17	583	472	– 19
Total Downstream	925	930	1	1908	1903	–

2

Sources and Uses of Funds[1]

Overview

Funds available to the petroleum industry prior to 'discretionary uses' decreased $4.4 billion or 31% to $10.1 billion in 1990. This resulted from a decline of $5.4 billion in net external sources, partly offset by an increase in internal cash flow of $925 million. Net external sources provided $155 million in 1990 vs. $5.6 billion in 1989.

Redemption of long–term debt exceeded new debt[2] by $525 million in 1990 compared with $3.3 billion in net new long–term debt in 1989. New equity, net of repurchases, was $680 million in 1990 vs. $2.2 billion in 1989. New long–term debt and equity in 1989 were raised for the purpose of takeover activity in the petroleum industry. In 1990, non–strategic assets were sold in an effort to eliminate marginal activities and to reduce long–term debt.

During 1990, net capital outlays were 11% higher at $8.6 billion. Dividend payments rose 22% from $1.4 billion to $1.7 billion. In 1990, the sale of assets to pay down long–term debt can be seen in the excess of 'All Other Sources' over 'All Other Uses'. The excess of 'All Other Uses' over 'All Other Sources' in 1989 resulted from the purchase of assets and takeover activity.

The net decrease in working capital of $55 million in 1989 compares to a net increase of $560 million in 1990 (Appendix B10).

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(1) Sources and uses of funds for an individual company are reported to the PMA on a net basis. For example, a company raising and repaying debt would report only the net amount. Similarly, companies report only the net amount with regard to changes in equity and in working capital. For the industry as a whole, the PMA continues this process of netting the aggregates to show the industry's net draw of funds from, or net contribution of funds to, other sectors of the economy. However, to allow the reader to distinguish at the aggregate level between new long–term debt and repayment of debt, etc., these aggregates are shown separately in Table 9.

(2) Other long–term liabilities increased as a result of a corporate restructuring that occurred in the latter half of 1990. Increases in this category are shown with 'other sources of funds'.

Table 8.
Sources and Uses of Funds (Net) in billions of dollars

	1989	1990	Change	Change %
Internal Sources				
Net Income before Unusual Items	1.6	2.4	0.8	52
Non–cash Items	7.3	7.4	0.1	1
Internal Cash Flow	**9.0**	**9.9**	**0.9**	**10**
Net External Sources				
New Long–term Debt, Net of Repayments	3.3	–0.5	–3.8	–
New Equity, Net of Repurchases	2.2	0.7	–1.5	–69
Net External Sources	**5.6**	**0.2**	**–5.4**	**–97**
Net Sources	**14.5**	**10.1**	**–4.4**	**–31**
Discretionary Uses				
Net Capital Expenditures	7.7	8.6	0.9	11
Dividend Payments	1.4	1.7	0.3	22
All Other Uses, Net of Other Sources	5.5	–0.7	–6.2	–
Net Uses	**14.6**	**9.5**	**–5.1**	**–35**
Net Working Capital Change	**–0.1**	**0.6**	**0.7**	**–**

Sources and Uses of Funds (Gross)

New long–term debt was $2.6 billion, down $2.7 billion from the previous year. Repayment of debt rose $1.1 billion to $3.1 billion. New share issues dropped $1.6 billion to $1.4 billion, while equity reductions declined $140 million to $690 million in 1990. The decrease in new long–term debt and equity was largely due to a reduction of takeover activity.

Reported individual decreases of working capital totalled $1.2 billion in 1990, down $360 million from the 1989 total. Individually reported increases in working capital amounted to $1.8 billion in 1990 compared to $1.5 billion in 1989.

Funds reported as 'all other sources' represent, in part, proceeds from the sale of oil and gas properties. 'All other sources' provided $4.5 billion in 1990 vs. $3.9 billion in 1989. 'All other uses' of funds fell from $9.4 billion in 1989 to $3.8 billion in 1990 largely as a result of decreased funds used for takeover activity. Also, funds used for the purchase of assets decreased to $1.2 billion from $1.5 billion in 1989.

Net capital expenditures increased 11% ($860 million) to $8.6 billion in 1990 over 1989 (for further detail see Table 11).

Table 9.
Selected Categories of Sources and Uses of Funds in billions of dollars[a]

	1989	1990	Change	Change %
New Long–term Debt[b]	5.3	2.6	– 2.7	– 51
Repayment of Long–term Debt[d]	2.0	3.1	1.1	56
Long–term Debt, Net of Repayments	**3.3**	**– 0.5**	**– 3.8**	**–**
New Equity[b]	3.0	1.4	– 1.6	– 55
Repurchase of Equity[d]	0.8	0.7	– 0.1	– 17
Net Equity, Net of Repurchases	**2.2**	**0.7**	**– 1.5**	**– 69**
Working Capital Increase[d]	1.5	1.8	0.3	16
Working Capital Decrease[b]	1.6	1.2	– 0.4	– 23
Net Working Capital Change	**– 0.1**	**0.6**	**0.7**	**–**
All Other Sources[c]	3.9	4.5	0.6	17
All Other Uses[e]	9.4	3.8	– 5.6	– 59
Other Uses Net of Other Sources	**5.5**	**– 0.7**	**– 6.2**	**–**
Total Capital Outlays	7.9	8.6	0.7	9
Incentive Grants and Other Receipts	0.2	0.1	– 0.1	– 59
Net Capital Expenditures	**7.7**	**8.6**	**0.9**	**11**

Notes:
(a) Appendix B10 shows more detail.
(b) Represents amounts of new long–term debt, new equity, or funds from drawing down working capital by those companies that reported deriving net funds from these sources.
(c) Includes unusual gains; unusual losses are included in 'All Other Uses'.
(d) Represents the net application of funds to repay long–term debt, repurchase equity, or to build up working capital by those companies that reported using funds for these purposes.
(e) Mainly funds for acquisitions of plant and property from other corporations and for corporate takeovers.

Internal Cash Flow

Petroleum industry internal cash flow increased 10% ($925 million) to $9.9 billion in 1990. Higher revenues, particularly for crude oil and oil products, together with lower interest charges more than offset the impact of increased feedstock costs, operating costs and current income taxes. The upstream segment recorded an increase of 24% ($1.6 billion) to $8.1 billion due to higher crude oil prices and lower interest charges. Cash flow from downstream operations was unchanged at $1.9 billion as increased cost of goods sold (feedstock costs) offset increased revenues. Cash flow of 'other Canadian' operations fell from a negative $60 million in 1989 to a negative $695 million in 1990. Internal cash flow from foreign activities increased 5% to $620 million in 1990.

Canadian-controlled companies' internal cash flow increased 16% to $4.3 billion in 1990. Strong upstream and foreign operations' results more than offset the poorer performance of downstream and 'other Canadian' operations.

Foreign-controlled firms' cash flow was up 6% to $5.6 billion, with higher cash flow in upstream, downstream and foreign activities more than offsetting decreases in 'other Canadian' operations.

Table 10.
Internal Cash Flow by Sector and Segment in billions of dollars[a]

	1989	1990	Change	%
Canadian-Controlled Companies				
Upstream	2.6	3.4	0.8	30
Downstream	0.7	0.7	–	-3
Other[b]	0.3	0.2	-0.1	-48
Total Canadian-Controlled	**3.7**	**4.3**	**0.6**	**16**
Foreign-Controlled Companies				
Upstream	3.9	4.7	0.8	19
Downstream	1.2	1.2	–	1
Other[b]	0.2	-0.3	-0.5	-
Total Foreign-Controlled	**5.3**	**5.6**	**0.3**	**6**
Total Industry				
Upstream	6.5	8.1	1.6	24
Downstream	1.9	1.9	–	-
Other[b]	0.5	-0.1	-0.6	-
Grand Total	**9.0**	**9.9**	**0.9**	**10**

Notes:
(a) See Appendices B1, B6 and B7 for more detail.
(b) Comprises internal cash flow generated by foreign activities and 'other Canadian' operations.

Capital Expenditures

Gross capital expenditures rose 9% to $8.6 billion in 1990 over 1989. Domestic expenditures increased 8% to $8 billion while outlays abroad rose 22% to $655 million. Expenditures abroad, as a share of total capital spending, was up one percentage point to 8% of the total in 1990. Upstream expenditures remained the largest component of total capital outlays, accounting for 74% in 1990, up two percentage points from 1989. Downstream expenditures declined 12% and the small component of other expenditures rose 5%.

Upstream: The crude oil price rise resulting from the Persian Gulf crisis seemed to have had an impact causing a slight increase in capital expenditures during the latter part of the year. Capital outlays, especially for development expenditures, rose in an effort to bring new production on stream. Also, increases in spending for the Bi-Provincial Upgrader classified together with oil sands expenditures, accounted for most of the increase in capital outlays of 73% within the non-conventional area. As a result, upstream capital expenditures increased 13% to $6.4 billion in 1990. All segments of expenditures were up in 1990 over those recorded in 1989. However, while exploration outlays rose only slightly, other categories increased significantly.

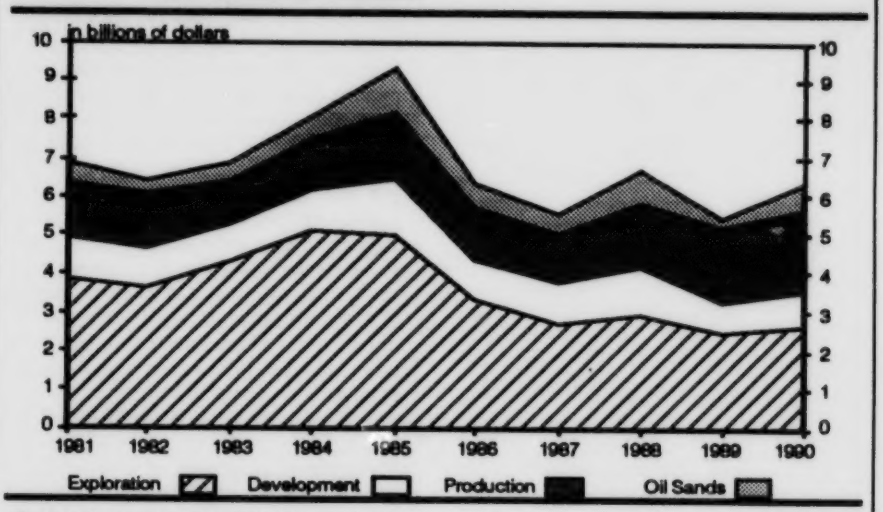
Upstream outlays by Canadian-controlled companies increased 27%, while those of foreign-controlled companies rose 1%. As a result, the Canadian-controlled group of companies' share of upstream capital spending rose 6 percentage points to 52% of the total in 1990 (Appendix B11).

Table 11.
Capital Expenditures in billions of dollars[a]

	1989	1990	Change	%	Share of Total 1989 %	1990 %
Upstream						
Exploration	2.5	2.6	0.1	4	32	30
Development	0.8	1.0	0.2	23	10	11
Production	1.9	2.1	0.2	7	24	24
Non-conventional[b]	0.4	0.7	0.3	73	5	8
Total Upstream[c]	**5.7**	**6.4**	**0.7**	**13**	**72**	**74**
Downstream	1.3	1.1	-0.2	-12	16	13
Other Energy Related	–	–	–	-36	–	–
All Other	0.4	0.4	–	9	5	5
Total Expenditures in Canada	**7.4**	**8.0**	**0.6**	**8**	**93**	**92**
Expenditures Abroad	**0.5**	**0.7**	**0.2**	**22**	**7**	**8**
Total Expenditures	**7.9**	**8.6**	**0.7**	**9**	**100**	**100**
Incentive grants and other receipts	0.2	0.1	-0.1	-59		
Net Capital Expenditures	**7.7**	**8.6**	**0.9**	**11**		
Memo Item: Upstream Capital Expenditures (Net of incentive grants and other receipts)	5.5	6.3	0.8	16		

Notes:
(a) More detail is presented in Appendices B11 and B12.
(b) Includes oil sands and non-conventional heavy oil projects.
(c) Includes incentives, grants, tax credits and other receipts.

Chart 12.
Upstream Expenditures in Canada

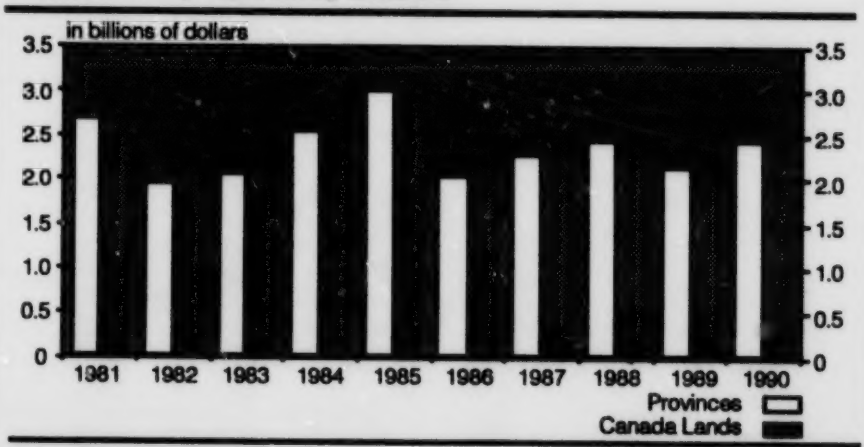


Exploration expenditures in the provinces increased 14% to $2.4 billion, and decreased 50% to $205 million on Canada Lands. This produced a 4% increase in total exploration spending to $2.6 billion. Expenditures on Canada Lands accounted for 8% of the total in 1990, down from 16% in 1989.

Exploration outlays by foreign-controlled companies were 7% lower in 1990, while those for Canadian-controlled firms were up by 15%. Canadian-controlled companies accounted for 54% of total exploration spending, up 5 percentage points from 1989 (Appendix B12).

Total exploration outlays grew rapidly between 1981 and 1985. This increase was driven by intense activity on Canada Lands, fuelled by incentives programs. The decline in crude oil and natural gas prices which started in 1986, along with the gradual elimination of most incentives programs, resulted in a significant reduction in exploration expenditures commencing in 1986 and in the last four years of the decade, falling to levels below that of 1981.

Chart 13.
Exploration Expenditures by Location



Downstream Expenditures: Downstream outlays declined 12% to $1.1 billion in 1990. Decreases in expenditures for refineries and marketing outlets more than offset increased spending on petrochemical plants.

Energy Mining and All Other: Expenditures were up 5% in energy mining and in all other areas including those for mining facilities, drilling ships, caissons and drilling rigs. This category of capital outlays may also include capitalized interest.

Reinvestment Rates

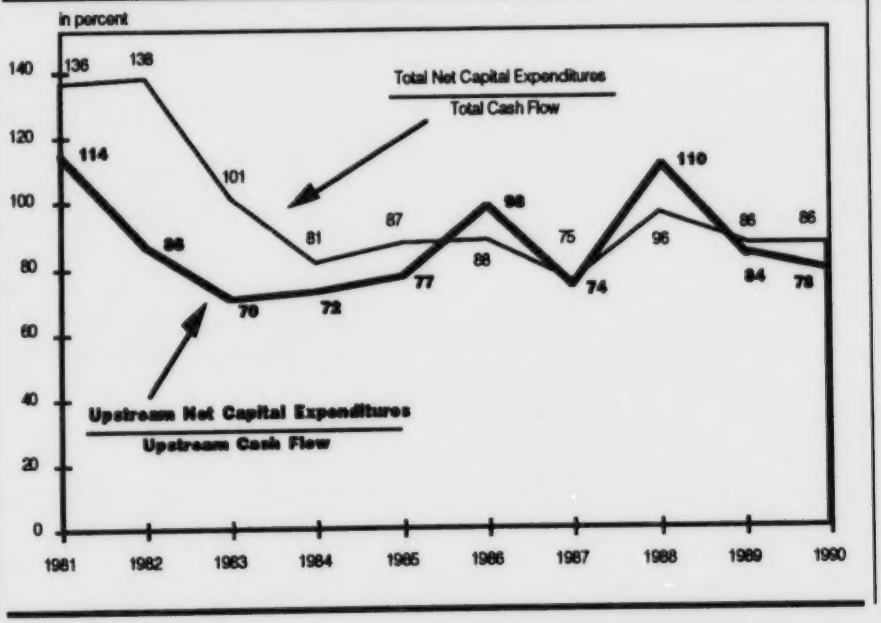
The overall reinvestment rate for the petroleum industry, total net capital expenditures(1) as a percentage of internal cash flow from all business segments, was 86% in 1990, unchanged from 1989 (Appendix A15). While capital budgets for 1990 were developed on the basis of a lower crude oil price, the higher prices resulting from the Persian Gulf crisis may have caused companies to increase their capital outlays in the area of development spending in an effort to bring more production quickly on stream. With the exception of exploration, all capital expenditure categories during the second half of 1990 rose markedly over outlays in the same 1989 period. In addition, oil sands expenditures rose as a result of higher spending on the Bi-Provincial Upgrader. The rise in net capital outlays kept pace with the increase in cash flow.

While Canadian-controlled companies reported overall increases in their reinvestment rates, foreign-controlled companies reported a slight decline. Canadian-controlled companies' total reinvestment rate increased from 97% in 1989 to 100% in 1990, while that for foreign-controlled companies fell from 78% to 76%. A comparison of the two groups in terms of upstream activities yields similar results, with Canadian-controlled companies reinvesting 96% of upstream cash flow (up one percentage point) vs. 65% for foreign-controlled firms (down 11 percentage points).

Upstream capital expenditures (net of incentive grants) were 78% of industry upstream cash flow, down 6 percentage points from the reinvestment rate for 1989. Upstream cash flow increased 24%, while net upstream capital expenditures rose 16%.

(1) Net capital expenditures are defined as gross capital expenditures less incentive grants, tax credits and insurance receipts.

Chart 14.
Reinvestment Rates



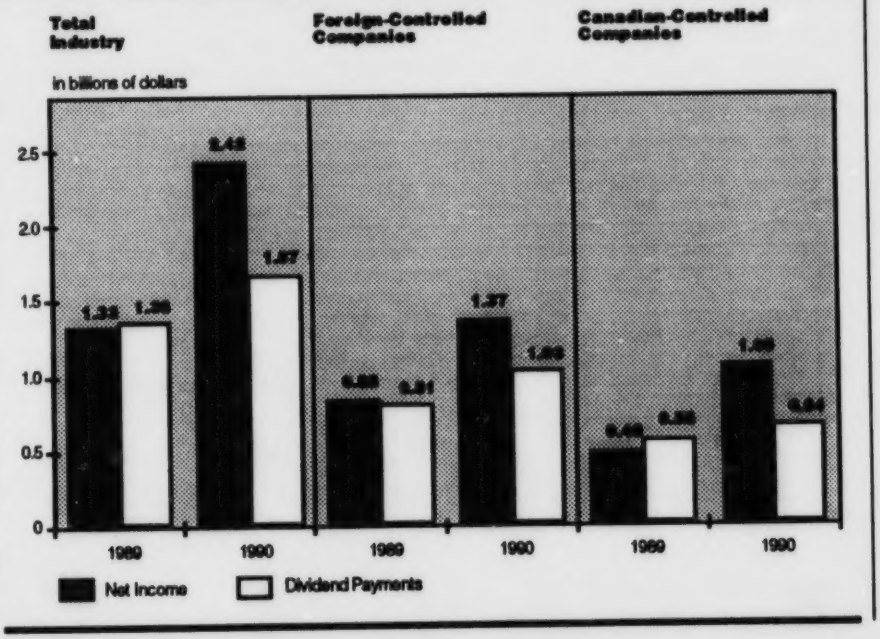
Dividend Payments

Dividend payments by the petroleum industry increased 22% to $1.7 billion in 1990, while net income rose 81% from $1.3 billion in 1989 to $2.4 billion. As a result, the industry payout rate declined from 102% in 1989 to 69% in 1990.

Dividends paid by Canadian-controlled companies increased 16% to $640 million for a payout rate of 61% in 1990, while dividend payments by foreign-controlled companies rose 27% to $1 billion, a payout of 75% (Appendices A19 and B10).

While in most cases companies pay dividends out of profits, the netting of companies reporting losses against those reporting profits may yield unusual results in terms of payout rates which is reflected to some degree in the 1989 data.

Chart 15.
Dividend Payments Compared with Net Income



3

Comparative Performance: Petroleum and Other Industries

Net Income Comparison

The petroleum sector's financial performance can be put into perspective by comparing it to other sectors of the economy using data from Statistics Canada(1). It will be noted that the data for the non–financial industry shown in prior reports are quite different from those statistics presented here. This is due to modifications to Statistics Canada data as described in footnote (1).

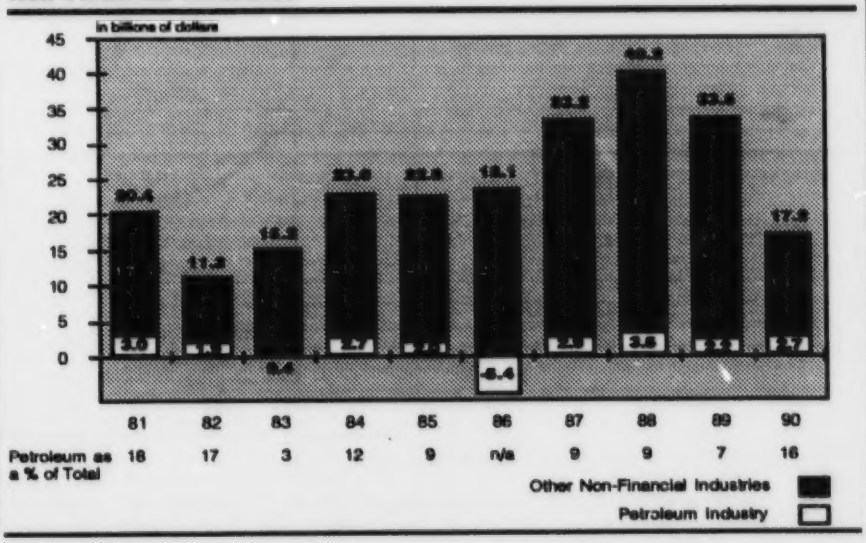
The purpose of this chapter is to indicate the relative and changing importance of the petroleum industry in the total net income picture of all non–financial industries.

Table 12.
Comparison of Net Income: Petroleum Industry vs. All Other Non–Financial Industries in billions of dollars

	1989	1990	Change	%
Total Non–Financial excluding Petroleum	31.3	14.5	– 16.8	– 54
Petroleum	2.2	2.7	0.5	23
Total Non–Financial including Petroleum	33.5	17.2	– 16.3	– 49

(1) The data given in this section of the report are not precisely comparable with those based on the PMA survey which are reported in Chapters 1 and 2. Beginning with the fourth quarter of 1990, a number of changes were introduced by Statistics Canada to their statistical series. The two industrial classifications of 'Mineral Fuels' and 'Petroleum and Coal Products' which together closely approximated the aggregate PMA survey results of upstream and downstream operations, are no longer available. As a result, this chapter now deals with a much broader definition of Petroleum which includes not only upstream and downstream operations, but also wholesaling and retailing activities, contract drilling, petroleum pipelines and other services incidental to petroleum and natural gas production. In addition, while in the past a comparison was made with companies having assets of more than $10 million, this is no longer possible. Instead, the entire non–financial industry is selected for comparison. However, as in the past, the petroleum industry data from Statistics Canada, while covering a greater number of companies than the PMA survey, exclude government business enterprises as well as the foreign activities of companies originating in Canada. The PMA survey covers the global activities of petroleum companies operating in Canada, including Crown corporations, subject to a minimum size of $10 million in terms of assets and revenues.

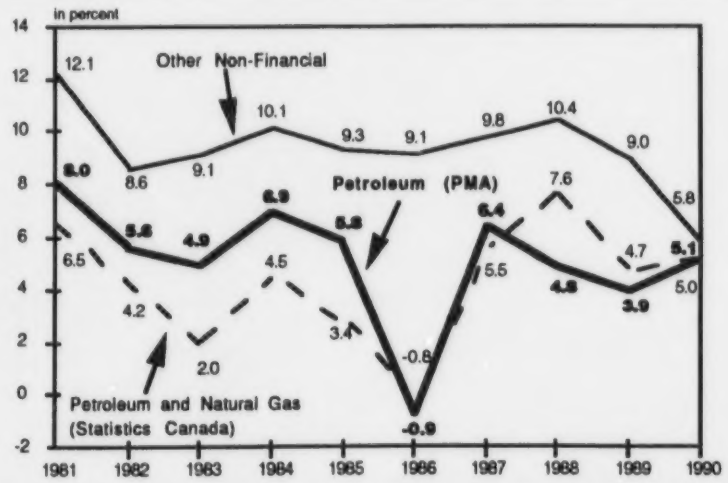
Chart 16.
Comparison of Net Income: Petroleum Industry vs. All Other Non–Financial Industries



Exclusive of Crown corporations, the petroleum industry's net income from Canadian operations after extraordinary items increased 23% to $2.7 billion in 1990, compared with a 54% decrease to $14.5 billion for all other non–financial industries. Chart 16 shows that the petroleum industry's net income for 1990 represented 16% of all non–financial industries' net income vs. 7% in 1989.

The rate of return on capital employed for the petroleum industry rose from 3.9% in 1989 to 5.1% in 1990, but was still below the rate of return for other non–financial industries of 5.8%, down from 9% in 1989.

Chart 17.
Rates of Return on Capital Employed: Petroleum(1) vs. All Other Non–Financial Industries



(1) PMA data for the petroleum industry are not precisely comparable with those of Statistics Canada. The petroleum and natural gas series include industries not covered by the PMA such as contract drilling, pipelines and other service industries.

Capital Expenditures

Based on Statistics Canada data, petroleum industry gross capital expenditures (i.e. before deducting incentive grants) increased 5%(1) in 1990 over 1989. However, federal and provincial expenditures on the Bi–Provincial Upgrader are not included within these data. Had they been included, the increase would have been higher.

Capital expenditures of non–financial industries excluding petroleum increased by 1%. The capital expenditures of the petroleum industry as a proportion of total capital expenditures of all non–financial industries increased by 1 percentage point to 15% in 1990.

(1) These data differ significantly from those published in Chapter 2 due to Statistics Canada's inclusion of some acquisitions in the category of capital expenditures.

Table 13.
Comparison of Capital Expenditures: Petroleum Industry vs. All Other Non–Financial Industries in billions of dollars

		1989	1990	Change	Change %
1.	**Total Non–Financial** excluding Petroleum	**68.4**	**69.1**	**0.7**	**1**
2.	Petroleum	11.5	12.1	0.6	5
3.	**Total Non–Financial** including Petroleum	**79.9**	**81.2**	**1.3**	**2**
4.	Line 2 as a % of line 3	14	15		

Source:
Statistics Canada, 61-008, *Quarterly Financial Statistics for Enterprises*. This survey does not include government enterprises. Expenditures are net outlays, excluding capital grants.

4

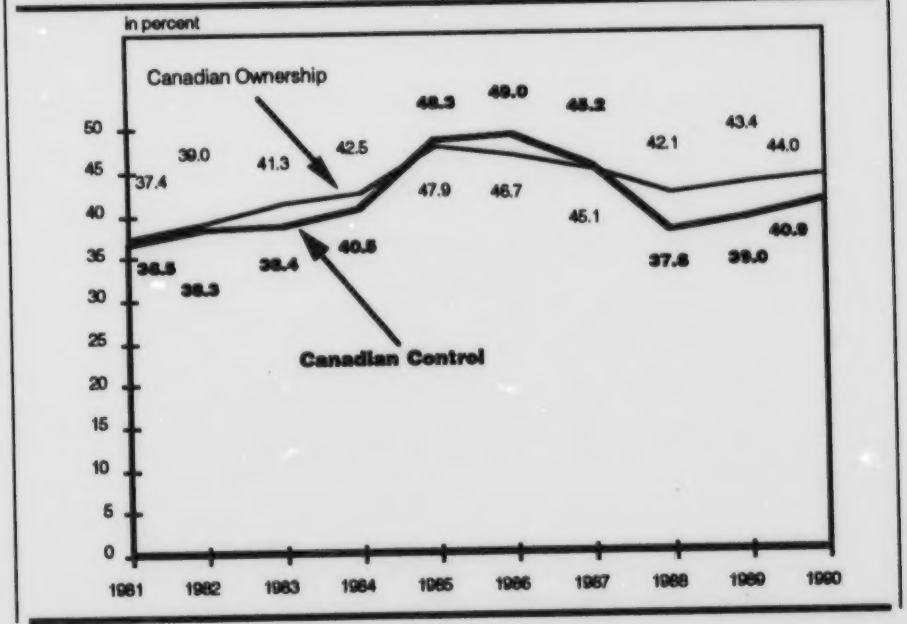
Ownership and Control Trends

Canadian ownership of upstream revenues increased to 44% in 1990 from 43.4% in 1989 (up 0.6 percentage points) while Canadian control rose from 39% to 40.9% in 1990, an increase of 1.9 percentage points (Appendix A22).

A closer scrutiny of the ownership of shares held in Canada in the 'book-based system' (BBS) was accomplished for the 1990 data series. Nominee accounts held in this system, primarily at the Canadian Depository for Securities (CDS), have in some cases obscured beneficial ownership. A complete analysis of the CDS position of petroleum companies indicated that a portion of these holdings, previously accorded Canadian ownership status, are beneficially owned by non-Canadians through financial institutions. This would also apply for years prior to 1990, but the extent of this occurrence cannot be quantified. This improved measurement, therefore, creates a discontinuity in the data series. Without the information supplied by the financial institutions, the Canadian ownership of upstream revenues would have shown an additional increase of 1.8 percentage points to yield a Canadian ownership rate of 45.8% vs. the 44% rate. The increase in Canadian ownership resulted from the purchase by Canadian residents of shares from non-residents and from the purchase by Gulf Canada Resources of the 22.8% share of Interhome Energy held by Imperial Oil.

The 1.9 percentage point increase in Canadian control resulted from the purchase of assets by Canadian-controlled companies from foreign-controlled companies in 1989 and 1990. Following a number of major takeovers by foreign-controlled companies, there were asset sales in an effort to rationalize operations, meet Investment Canada commitments and pay down debt. In 1989, Canadian-controlled companies accounted for $860 million of the total $1.5 billion of assets purchased. In the following year, they bought $550 million of the $1.2 billion of assets purchased. These asset purchases and a much higher rate of upstream capital expenditures allowed Canadian-controlled companies to increase their upstream revenues at a faster rate than their foreign-controlled counterparts (21% vs. 15%) and resulted in an improved Canadian ownership and control level of upstream revenues in 1990 over 1989.

Chart 18.
Canadian Ownership and Control of Upstream Revenues



Canadian ownership of upstream plus downstream revenues rose 0.8 of a percentage point to 45.7% in 1990, while Canadian control increased 2 percentage points to 38.1%.

The previously noted transactions that affected upstream ownership and control levels had a similar impact on the ownership and control levels of upstream and downstream revenues.

Chart 19.
Canadian Ownership and Control of Upstream plus Downstream Revenues

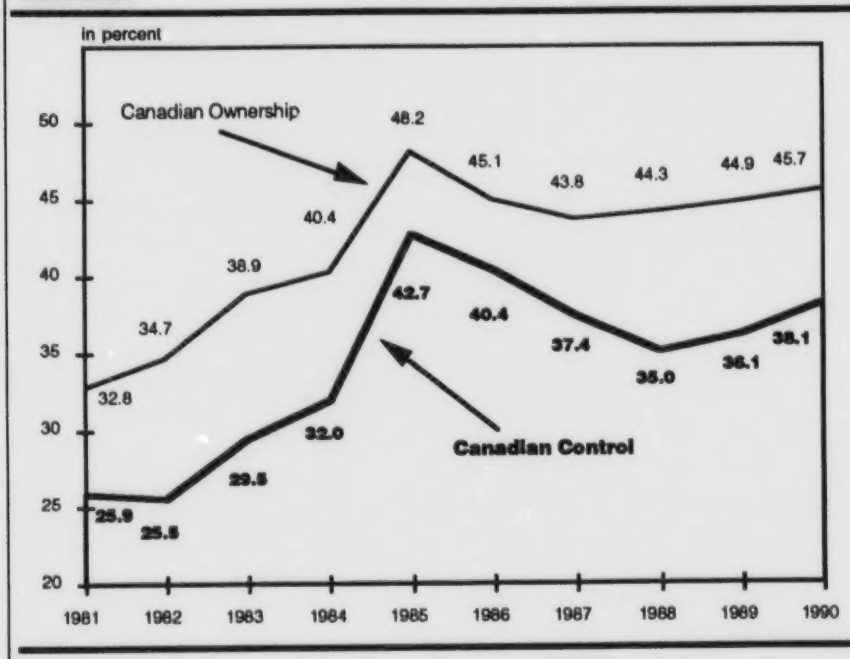


Table 14.
Ownership and Control by Country and Sector in percent[a]

	Ownership		Control	
	1989	1990	1989	1990
United States	39.2	38.0	44.2	42.2
Other Foreign	15.9	16.3	19.7	19.7
Total Foreign	**55.1**	**54.3**	**63.9**	**61.9**
Canadian Public Sector	16.1	16.6	16.3	16.7
Canadian Private Sector	28.8	29.1	19.8	21.4
Total Canadian	**44.9**	**45.7**	**36.1**	**38.1**

Note:
(a) Based on upstream plus downstream ('petroleum-related') revenues.

5

Research and Development Activities: 1990 vs. 1989

A total of 14 PMA companies, mostly larger firms, reported R&D expenditures in 1990, compared to 17 in 1989(1). During 1990, 'in–house' R&D expenditures fell by 1% to $186 million, while contract work performed by others rose by 19% to $124 million.

'In–house' Expenditures

Of the total 'in–house' R&D expenditures of $186 million in 1990, expenditures of a current nature increased to $158 million or by 2%. The wages and salaries component increased 10% to $72 million. The balance, $28 million of total 'in–house' expenditures, was spent on capital goods, primarily R&D equipment. The capital expenditures component decreased by 16% relative to 1989 levels.

Refinery technology R&D remained the largest single component of 'in–house' R&D expenditures at 34%, but decreased in absolute terms by $2 million to $62 million. R&D expenditures related to conventional crude oil and natural gas decreased to $48 million (vs. $59 million in 1989), representing 26% of all 'in–house' R&D expenditures in 1990. In–situ recovery of heavy oil increased by more than half to $36 million, while surface mining more than doubled to $29 million.

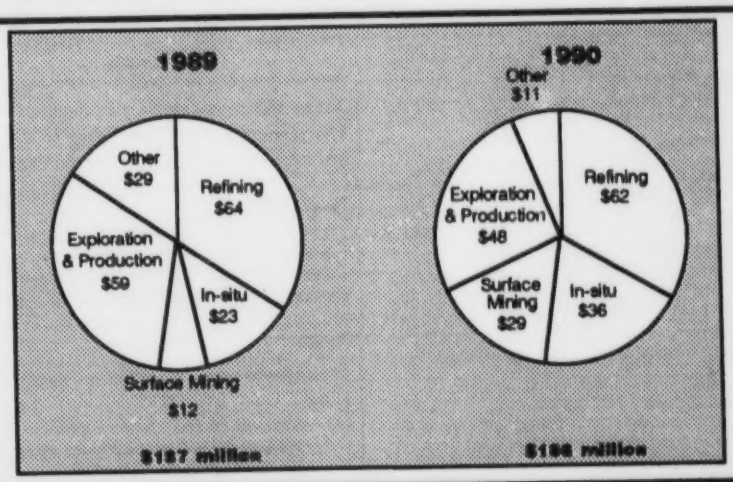
Energy technology R&D, other than that related to oil and gas, fell from $24 million (13%) of total 'in–house' R&D expenditures by major oil and gas enterprises to $7 million (4%) of such expenditures in 1990. Non–energy related R&D expenditures declined by 38% to $3 million in 1990 (Appendix A23).

Table 15.
Sources of Funds Expended on 'In–house' R&D in millions of dollars

	1989	1990
Internal	153	149
Parent, affiliated & subsidiary companies	14	16
Government grants & contracts	7	8
R&D performed on behalf of others	2	13
Other	11	–
Total 'In–house' R&D	187	186

(1) Data are drawn from responses to two Statistics Canada questionnaires, *Research and Development in Canadian Industry* and *Energy R&D Expenditures by Area of Technology*, made available to the PMA under an agreement pursuant to the Statistics Act. There may be a small element of 'double counting' as the reported amount of 'in–house' R&D may include contract work performed for other petroleum companies.

Chart 20.
'In–house' R&D Expenditures by Activity in millions of dollars



Total R&D personnel employed by the surveyed companies decreased from 1092 in 1989 to 1065 in 1990. The percentage of scientists, engineers and senior R&D administrators was constant at 44% of all employees engaged in R&D.

Reporting companies provided 80% of the funds allocated to 'in-house' activity as indicated by Table 15. The remainder was obtained from federal and provincial government grants, contract work performed for other companies, and from allocations by parent and affiliated companies to Canadian subsidiaries.

The bulk of 'in-house' R&D activity in Canada was conducted in Alberta and Ontario (58% and 37%, respectively, of total outlays in 1990). R&D performed in Alberta during 1990 accounted for 46% of R&D personnel employment , while Ontario accounted for 52%.

Contract Expenditures

Energy and non-energy related contract R&D expenditures by PMA reporting companies totalled $124 million in 1990, up 19% from 1989. Research performed abroad on behalf of Canadian petroleum companies accounted for 71% of total contract R&D expenditures, a decrease of 3 percentage points over 1989.

Chart 21.
'In-house' R&D Expenditures by Activity: 1981 - 1990

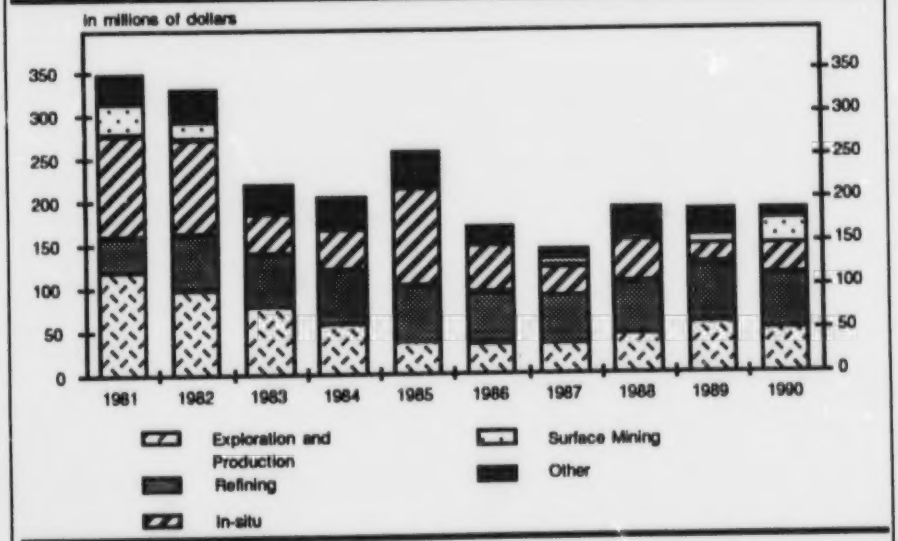


Table 16.
Contract R&D Spending in Canada and Abroad in millions of dollars

Recipient	In Canada 1989	In Canada 1990	Abroad 1989	Abroad 1990	Total 1989	Total 1990
Parent and Affiliated Companies	16	19	73	85	89	104
Other Corporations	9	14	5	3	14	17
Research Institutions & Other	4	3	–	–	4	3
Total	**29**	**36**	**77(a)**	**88(a)**	**104**	**124**

Note:
(a) Amounts of $77 million and $88 million represented outlays on energy-related technologies in 1989 and 1990 respectively. No breakdown is available between energy components for contract activities in Canada.

Appendices

Appendix A Supplementary Information

A1

Year in Review

1990

Jan 5
Canada's and Nova Scotia's energy ministers announced proclamation of the federal and provincial legislation to implement the 1986 Offshore Petroleum Resources Accord between the two governments. Also announced were the appointments of a Chairman and members to the Canada Nova Scotia Offshore Petroleum Board.

Feb 20
Canada's Minister of Finance announced the 1990–91 federal budget. The petroleum industry was affected by the cancellation of federal support for the "Other Six Leases Operation" (OSLO) oil sands project and by the termination of the Canadian Exploration Incentive Program (CEIP). Details of the decision were released by the Minister of Energy, Mines and Resources on February 21 and included a one year grandfathering provision for eligible expenditures incurred after the termination date.

Mar 9
The Minister of Energy, Mines and Resources announced details of the CEIP grandfathering provisions in Information Circular IC–CEIP–90–1.

May 24
The Minister of Energy, Mines and Resources opened the 17 session consultation phase of the Green Plan for Canada.

Jun 9
The Minister of Energy, Mines and Resources announced that the Government of Canada will contribute up to $45.5 million towards completion of the conceptual engineering study phase for the OSLO project in northern Alberta. This phase is to be completed by December 31, 1991.

Jun 15
Canada Oil and Gas Lands Administration (COGLA) published its eighth annual report, which reviews oil and gas activities on frontier lands during 1989.

Aug 2
Kuwait was invaded by Iraqi troops.

Aug 17
Energy, Mines and Resources released a report based on monitoring the performance of domestic and export natural gas prices during the November 1988 – October 1989 'gas year'. It concluded that prices paid in the domestic market for Canadian natural gas have fallen over that period, and continue to be lower than export prices.

Aug 22
Commenting on the situation in the Persian Gulf, the Minister of Energy, Mines and Resources noted that no oil market instability would result in Canada from the political situation in the Persian Gulf since this country's oil imports were only one per cent of consumption and the security of the supply of only 3 per cent of imports was dependent upon that situation.

1991

Jan 11
Canada announced its adoption of the International Energy Agency's Persian Gulf energy emergency response contingency plan of coordinated stock draw–down, temporarily increased crude oil production, demand restraint, and other measures short of crude oil and product allocation, rationing or price controls by the 21 participating countries. Of the 2.5 million barrels per day to be made available to the international oil markets by these measures, Canada was committed to provide 115,000 barrels per day.

Feb 26
The Government of Canada's budget for the 1991–92 fiscal year announced the restructuring of the Canada Oil and Gas Lands Administration. The movement of the National Energy Board's place of office from Ottawa to Calgary was also announced.

Feb 27
Energy, Mines and Resources Canada released the natural gas price monitoring report for the first half of the 1989–90 gas year. It showed that prices paid in the domestic market for Canadian natural gas have increased marginally over the last year, and continue to be lower than export prices.

Mar 28
Details were provided concerning a restructuring of the Canada Oil and Gas Lands Administration involving the winding down of the Administration through integration of many of its functions into existing federal departments and agencies, and federal–provincial boards.

A2 Petroleum Supply and Demand Summary[a] [b]

	1989	1990	Change
	thousands of m³/day		%
Production			
Crude Oil	266	264	– 1
Natural Gas Liquids[c]	47	50	7
Total Production	**313**	**314**	**–**
Net Exports[d]			
Crude Oil	26	19	– 26
Natural Gas Liquids	18	19	5
Refined Products	6	16	169
Total Net Exports	**50**	**54**	**8**
Consumption			
Natural Gas Liquids	38	39	3
Refined Products	249	243	– 2
Total Consumption	**287**	**282**	**– 2**

Notes:

(a) Petroleum includes conventional and synthetic crude oil and natural gas liquids (propane, butane and ethane) derived from gas processing and gas reprocessing plants. Data on the production, net exports and consumption do not represent a complete supply/demand balance as industry's own use and stock changes are not shown.

(b) Figures represent total industry activity and are derived from a number of sources:
Production – Statistics Canada (Catalogue 26-006)
Net Exports – EMR, Oil and Gas Branch
Consumption – Statistics Canada (Catalogue 45-004)

(c) Does not include refinery production of 8.7 thousand m³/d in 1990 and 8.8 thousand m³/d in 1989.

(d) On a gross basis, crude oil imports (including exchange receipts) in 1989 and 1990 were 77,400 m³/d and 85,200 m³/d (487,100 b/d and 536,200 b/d) respectively, or 27% and 30% of domestic consumption in those periods.

A3 Natural Gas Supply and Demand Summary[a]

	1989	1990	Change
	millions of m³/day		%
Production			
Gross New Production	375	376	–
less:			
Injected, Shrinkage and Adjustments	78	72	7
Indigenous Supply	297	304	2
less:			
Producer Consumption	32	33	2
Marketable Production	**265**	**271**	**2**
Net Exports	**102**	**110**	**8**
Consumption			
Energy Use	142	139	– 2
Non-energy Use	12	10	– 16
Converted to Electricity and Other[b]	41	45	10
Total Consumption	**195**	**194**	**– 1**
NEB Export Authorization	**162**	**162**	**–**

Note:

(a) Figures represent total industry activity and are derived from a number of sources:
Production – Statistics Canada (Catalogue 26-006)
Net Exports – EMR, Oil and Gas Branch
Consumption – Statistics Canada (Catalogue 45-004)

(b) Adjusted to represent total domestic consumption including producer consumption and stock variations.

A4 **Canadian Natural Gas Prices** in dollars per gigajoule

	Field Gate Including Export Flow Back	Alberta Border	Toronto City Gate	Weighted Ontario Sales Realization	Ontario Market		
					Residential	Commercial	Industrial
1977	1.21	1.04	1.47	1.85	2.44	1.96	1.37
1978	1.44	1.28	1.77	2.14	2.74	2.22	1.90
1979	1.66	1.36	1.92	2.35	3.03	2.43	2.06
1980	2.30	1.61	2.23	2.69	3.43	2.73	2.36
1981	2.34	1.75	2.42	3.40(a)	4.24	3.41	3.03
1982	2.53	2.01	2.80	4.16(a)	4.93	4.12	3.70
1983	2.48	2.48	3.38	4.74(a)	5.72	4.78	4.15
1984	2.61	2.78	3.71	4.77	5.79	4.86	4.16
1985	2.47	2.80	3.76	4.76	5.84	4.86	4.14
1986	2.32	2.80	3.78	4.73	5.79	4.81	4.04
1987				4.44	5.70	4.66	3.55
1988				4.38	5.67	4.55	3.50
1989							
Jan				4.52	5.20	4.63	3.64
Feb				4.58	5.36	4.55	3.77
Mar				4.59	5.36	4.59	3.80
Apr				4.24	5.16	4.28	3.43
May				3.44	4.19	3.37	3.05
Jun				3.45	4.43	3.63	3.08
Jul				3.97	6.31	4.16	3.19
Aug				3.76	6.25	4.04	3.00
Sep				3.65	5.11	3.52	3.24
Oct				3.82	4.77	4.11	3.22
Nov				4.03	5.03	4.09	3.29
Dec				4.27	5.04	4.31	3.37
Average				4.03	5.18	4.11	3.34
1990							
Jan				4.27	5.03	4.30	3.35
Feb				4.25	5.08	4.29	3.38
Mar				4.26	5.08	4.34	3.41
Apr				4.04	4.92	4.05	3.28
May				4.03	5.37	4.13	3.27
Jun				4.01	5.79	4.24	3.28
Jul				4.11	6.24	4.21	3.33
Aug				4.10	6.38	4.24	3.30
Sep				4.06	6.31	4.37	3.27
Oct				4.07	5.47	4.14	3.31
Nov				4.09	5.05	4.09	3.35
Dec				4.29	5.17	4.30	3.42

Source:
Statistics Canada (Catalogue 55-002)

Note:
(a) The rising average sales realizations for the years 1981 to 1983 reflect the imposition of the Natural Gas and Gas Liquids Tax.

A5 Canadian Crude Oil Prices

	Conventional Crude Oil Wellhead Price[a]		Petroleum Compensation & Other Charges		Cost of Crude Oil Exclusive of Transportation[b]		Refiner Acquisition Cost at Montreal	
	$/bbl	$/m³	$/bbl	$/m³	$/bbl	$/m³	$/bbl	$/m³
1981								
Jan 1	17.75	111.70	5.05	31.77	22.80	143.47	24.07	151.47
1982								
Jan 1	23.50	147.89	7.45	46.89	30.95	194.78	32.54	204.77
1983								
Jan 1	29.75	187.22	4.91	30.89	34.66	218.11	35.79	225.25
1984								
Nov 10	29.75	187.22	7.69	48.39	37.44	235.61	39.44	248.21
1985								
Jun 1	36.40	229.06					38.30	241.02
1986								
Jan	32.79	206.34					34.76	218.93
Feb	22.20	139.70					24.18	152.16
Jul	14.60	91.88					16.58	104.34
Dec	19.23	121.01					21.30	134.04
1987								
Jan	22.74	143.10					24.87	156.51
Mar	20.36	128.13					22.48	141.47
Jul	25.17	158.39					27.32	171.92
Dec	20.95	131.84					23.14	145.62
1988								
Mar	17.67	111.20					19.81	124.66
Jun	18.43	115.98					20.55	129.32
Sep	15.94	100.31					18.05	113.71
Dec	16.04	100.94					18.15	114.22
1989								
Mar	19.84	124.83					21.99	138.34
Jun	21.53	135.47					23.68	149.00
Sep	20.57	129.45					22.77	143.29
Dec	21.62	136.06					23.81	149.84
1990								
Jan	23.56	148.26					25.76	162.11
Feb	24.16	152.04					26.37	165.59
Mar	21.84	137.44					24.04	151.26
Apr	19.11	120.26					21.49	135.24
May	19.07	120.01					21.45	134.99
Jun	16.96	106.73					19.35	121.77
Jul	18.48	116.29					20.86	131.27
Aug	28.26	177.84					30.64	192.82
Sep	35.77	225.10					38.17	240.20
Oct	38.71	243.60					41.11	258.71
Nov	34.78	218.87					37.18	233.97
Dec	28.09	176.77					30.48	191.81
1991								
Jan	25.17	158.39					27.60	173.69
Feb	20.08	126.36					22.51	141.66

Source:
Energy, Mines and Resources Canada, Oil and Gas Branch

Notes:
(a) Starting June 1, 1985, i.e. following deregulation, the wellhead price shown here is the Edmonton purchase price less estimated gathering costs of approximately $3.96/m³ (63¢/bbl).
(b) Gathering and transportation costs, and charges as applicable, make up the difference between the wellhead price and the refiner acquisition cost at Montreal. These costs amounted to $15.30/m³ ($2.43/bbl) on February 1, 1991.

A6 Average Crude Oil Refiner Acquisition Costs by Region

in dollars per cubic metre[1]

	British Columbia	Prairie Provinces	Ontario	Quebec[2]	Atlantic[2]	Total Canada
1989						
Sep	136.15	131.32	140.14	130.97	130.31	134.08
Oct	137.47	135.36	140.64	139.30	142.24	138.31
Nov	140.16	136.16	143.08	141.94	142.88	140.71
Dec	141.37	139.97	142.98	145.51	147.42	143.29
1990						
Jan	146.03	151.03	150.18	150.39	157.84	151.14
Feb	155.75	155.10	159.15	158.32	163.60	158.82
Mar	156.24	141.95	159.62	146.40	150.06	150.30
Apr	147.87	119.88	146.72	136.97	138.51	135.82
May	131.48	118.39	130.57	130.35	125.30	126.46
Jun	124.97	109.43	131.24	117.05	115.59	119.85
Jul	119.83	114.71	124.09	114.11	113.80	117.51
Aug	141.05	177.16	138.55	147.30	163.35	154.70
Sep	188.38	223.35	186.29	208.97	231.49	207.11
Oct	231.43	240.01	234.57	256.62	269.04	244.29
Nov	239.10	219.93	243.74	264.18	270.51	243.59
Dec	216.36	179.73	223.05	227.74	227.61	213.93

Source:
Energy, Mines and Resources Canada, Oil and Gas Branch

(1) The variation in average refiner acquisition cost by region is due to quality differences and the lag time between the actual purchase and delivery dates. Assuming an estimated delivery time from Edmonton to Montreal of six weeks, receipts of any given month at Montreal reflect a mixture of crude purchases made during the two previous months.

(2) The exact average cost of crude oil imports is not available for Quebec and the Atlantic region due to confidentiality considerations. Therefore, the average cost of imports for total eastern Canada has been used to determine the regional averages for Quebec and Atlantic.

A7 Average Crude Oil Transporation Costs from Edmonton

in dollars per cubic metre[1]

	Vancouver	Regina	Sarnia	Toronto	Montreal
1989					
Sep	6.72	2.25	7.54	8.24	9.89
Oct	6.72	2.25	7.52	8.21	9.87
Nov	6.72	2.25	7.50	8.20	9.85
Dec	6.72	2.25	7.48	8.17	9.83
1990					
Jan	6.39	2.25	7.52	8.21	9.85
Feb	6.39	2.25	7.60	8.29	9.94
Mar	6.39	2.25	7.54	8.23	9.88
Apr	7.07	2.76	8.27	9.10	11.03
May	8.42	2.76	8.30	9.13	11.06
Jun	8.42	2.76	8.29	9.12	11.05
Jul	8.42	2.76	8.24	9.07	11.00
Aug	8.42	2.76	8.24	9.07	10.99
Sep	8.42	2.76	8.30	9.13	11.06
Oct	8.42	2.76	8.32	9.15	11.07
Nov	8.42	2.76	8.32	9.15	11.07
Dec	8.42	2.76	8.29	9.12	11.04

Source:
Energy, Mines and Resources Canada, Oil and Gas Branch

(1) Includes pipeline tariffs and pipeline losses but excludes trucking charges.

A8 Canadian Acquisition Costs vs. Product Prices in cents per litre

	Average Unit Revenue from Total Petroleum Product Sales[1]	Average Unit Refiner Acquisition Cost (lagged 60 days)[2]	Differential (To cover R&M Costs and Profits, and Retail Margin)
1985			
Dec	33.74	23.47	10.27
1986			
Dec	23.34	12.50	10.84
1987			
Dec	24.99	15.45	9.54
1988			
Jan	24.43	15.46	8.97
Feb	23.98	14.69	9.29
Mar	23.63	13.80	9.83
Apr	23.31	13.20	10.11
May	22.88	12.41	10.47
Jun	22.62	12.43	10.19
Jul	22.84	12.71	10.13
Aug	22.16	12.41	9.75
Sep	21.81	11.61	10.20
Oct	21.61	11.43	10.18
Nov	21.67	11.06	10.61
Dec	20.67	10.38	10.29
1989			
Jan	21.22	10.03	11.19
Feb	21.75	10.55	11.20
Mar	22.05	11.79	10.26
Apr	22.44	12.56	9.88
May	23.35	13.16	10.19
Jun	23.36	14.11	9.25
Jul	23.71	14.46	9.25
Aug	23.55	14.38	9.17
Sep	23.48	14.25	9.23
Oct	23.19	13.49	9.70
Nov	23.39	13.41	9.98
Dec	23.27	13.83	9.44
1990			
Jan	24.30	14.07	10.23
Feb	25.00	14.33	10.67
Mar	25.12	15.11	10.01
Apr	24.96	15.88	9.08
May	25.32	15.03	10.29
Jun	24.87	13.58	11.29
Jul	24.36	12.65	11.71
Aug	24.52	11.99	12.53
Sep	25.95	11.75	14.20
Oct	29.20	15.47	13.73
Nov	32.40	20.71	11.69
Dec	33.20	24.42	8.78

Sources:
(1) Statistics Canada, Prices Division
(2) Energy, Mines and Resources Canada, Oil and Gas Branch

A9 Average Net Prices for Selected Major Petroleum Products and Trade Classes by Region in cents per litre[1]

	1989	1990	Change[2]
Regular Unleaded Gasoline – Branded Retail			
Atlantic	28.3	31.6	3.3
Quebec	28.2	32.6	4.4
Ontario	25.4	29.0	3.6
Prairies	26.4	31.0	4.6
Pacific	28.3	33.5	5.2
Total Canada	26.7	30.8	4.1
Diesel Fuel – Commercial and Industrial			
Atlantic	21.2	24.2	3.0
Quebec	19.6	22.9	3.3
Ontario	19.6	22.8	3.2
Prairies	19.6	22.6	3.0
Pacific	20.1	23.1	3.0
Total Canada	19.8	22.9	3.1
Light Fuel Oil – Branded Retail			
Atlantic	26.4	31.0	4.6
Quebec	24.9	29.3	4.4
Ontario	27.2	32.5	5.3
Pacific	27.4	31.5	4.1
Total Canada	26.3	31.1	4.8
Heavy Fuel Oil # 6 – All trade classes			
Atlantic	11.8	12.6	0.8
Quebec	10.3	12.0	1.7
Ontario	11.8	13.7	1.9
Pacific	10.7	11.9	1.2
Total Canada	11.9	13.6	1.7
Total Petroleum Products[3] – All trade classes			
Atlantic	22.3	24.9	2.6
Quebec	21.4	24.3	2.9
Ontario	22.8	25.8	3.0
Prairies	23.7	27.5	3.8
Pacific	24.4	28.0	3.6
Total Canada	22.9	26.1	3.2

Source:
Statistics Canada, Prices Division

(1) Weighted average prices shown were derived from volumes and sales revenue data reported through a survey of major refiners for a wide range of finely specified products and trade classes. The prices are net of provincial road taxes, federal sales and excise taxes, and dealer margins.
(2) This represents the change in net prices compared to the year earlier period.
(3) This represents the summation of petroleum products from the sample selection reported to Statistics Canada in their survey.

A10 Petroleum Product Prices for Selected Major Products Sold to Private Brand Resellers

	1989		1990	
	Price ¢ / litre	Market Share[1] %	Price ¢ / litre	Market Share[1] %
Premium Unleaded Gasoline				
Quebec	22.7	12.3	26.2	16.0
Ontario	22.2	13.3	26.2	14.1
Prairies	21.1	5.8	23.8	10.0
Regular Unleaded Gasoline				
Quebec	19.7	15.5	23.0	17.1
Ontario	20.2	24.2	23.6	23.9
Prairies	20.5	10.0	23.0	11.3
Regular Leaded Gasoline[2]				
Quebec	19.2	20.1	n/a	n/a
Ontario	19.4	23.3	n/a	n/a
Prairies	17.9	14.7	n/a	n/a
Diesel Fuel				
Quebec	18.5	17.3	21.0	15.8
Ontario	18.3	12.9	20.8	11.4
Light Fuel Oil				
Quebec	17.6	27.4	20.2	27.2
Ontario	18.0	31.8	21.2	32.2
Pacific	20.7	17.8	23.7	15.5

Source:
Statistics Canada, Prices Division

(1) Reflects an estimated market share of sales by reporting refiners, excluding product imports.
(2) For 1990, only available at Canada level, where 13.5% of regular leaded gasoline was sold to private brand resellers at an average price of 20.6 cents per litre.

A11 Oil Products Sales Volumes: Refiners and Marketers

in millions of cubic metres

	Nationals			Regionals			Total		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Clean Products	49.2	46.2	-6	22.5	22.5	-	71.8	68.7	-4
Heavy and Specialty Products	11.4	11.9	4	5.7	6.7	19	17.0	18.6	9
Total Sales	**60.6**	**58.0**	**-4**	**28.2**	**29.2**	**4**	**88.8**	**87.3**	**-2**
less: Exports	3.2	3.3	4	3.1	4.6	47	6.3	7.9	26
Gross Sales in Canada	**57.4**	**54.7**	**-5**	**25.1**	**24.6**	**-2**	**82.5**	**79.3**	**-4**
less: Sales to Other Refiners	0.7	-	-100	0.5	0.1	-86	1.2	0.1	-94
Net Sales in Canada	**56.7**	**54.7**	**-4**	**24.6**	**24.5**	**-**	**81.3**	**79.3**	**-3**

A12 Net Income by Sector and Segment in millions of dollars

	1989	1990	Change	Change %
Canadian-Controlled Companies				
Upstream	274	806	531	194
Downstream	300	293	-7	-2
Other Canadian Operations	-66	-80	-15	-
Foreign Activities	-24	33	57	-
Total Canadian-Controlled	**484**	**1051**	**567**	**117**
Foreign-Controlled Companies				
Upstream	384	952	568	148
Downstream	625	637	12	2
Other Canadian Operations	-277	-334	-57	-
Foreign Activities	117	114	-3	-2
Total Foreign-Controlled	**849**	**1369**	**520**	**61**
Total Industry				
Upstream	659	1758	1099	167
Downstream	925	930	5	1
Other Canadian Operations	-342	-414	-72	-
Foreign Activities	92	147	55	59
Grand Total	**1333**	**2420**	**1087**	**81**

A13 Rates of Return: Canadian Petroleum Industry in percent

	1985	1986	1987	1988	1989	1990	Five-Year Average ending in 1989	Five-Year Average ending in 1990
Return on Average Capital Employed								
Upstream								
Canadian-Controlled Companies	9.7	-4.2	4.9	4.4	2.9	5.3	3.5	2.7
Foreign-Controlled Companies	9.4	3.9	9.0	3.0	3.2	4.4	5.7	4.7
Total Industry	9.5	-1.0	6.6	3.6	3.0	4.8	4.4	3.4
Downstream[a]								
Canadian-Controlled Companies	-1.8	5.9	3.9	6.8	4.6	5.0	3.9	5.2
Foreign-Controlled Companies	3.2	7.5	8.2	9.3	6.6	6.8	7.0	7.7
Total Industry*	1.4	6.8	6.4	8.3	5.8	6.2	5.7	6.7
Total Operations[b]								
Canadian-Controlled Companies	4.8	-4.6	4.8	4.7	3.6	5.4	2.6	2.8
Foreign-Controlled Companies	7.2	4.4	8.4	5.0	4.2	4.8	5.8	5.4
Total Industry	5.8	-0.9	6.4	4.8	3.9	5.1	4.0	3.9
*Memo:								
National Refiners/Marketers	1.2	6.6	5.9	6.7	5.4	5.0	5.2	5.9
Regional Refiners/Marketers	2.8	7.4	7.7	12.0	6.5	8.6	7.3	8.4
Return on Average Equity								
Total Operations[b]								
Canadian-Controlled Companies	5.5	-19.9	5.2	5.1	2.5	5.6	-0.3	-0.3
Foreign-Controlled Companies	11.0	5.9	12.6	6.0	4.0	6.5	7.9	7.0
Total Industry	8.2	-7.5	8.9	5.5	3.3	6.1	3.7	3.2

Notes:
(a) Downstream here represents oil products operations only, i.e. it excludes petrochemical and other downstream operations.
(b) Upstream, downstream (includes petrochemicals and other downstream activities), 'other Canadian' and foreign operations.

A14 Rates of Return: Non-Financial Industries Excluding Petroleum
in percent

	1985	1986	1987	1988	1989	1990	Five-Year Average ending in 1989	Five-Year Average ending in 1990
Return On Shareholders Equity[a]								
Non-Financial Industries Excluding Petroleum	10.9	11.2	12.8	14.5	11.4	5.1	12.2	11.0
Petroleum Industry[b]	4.4	-12.5	6.8	7.3	4.6	5.5	2.1	2.3
Return On Capital Employed[c]								
Non-Financial Industries Excluding Petroleum	9.3	9.1	9.8	10.4	9.0	5.8	9.5	8.8
Petroleum Industry[b]	3.4	-0.8	5.5	7.6	4.7	5.0	5.2	4.4

Source: Statistics Canada 61-008, Quarterly Financial Statistics for Enterprises

Notes:
(a) Return on equity is defined as net profit after tax and extraordinary items, divided by average book equity. It measures the rate of return on shareholders' investment (paid-in capital and retained earnings). This measure is often used to compare the performance of companies that may vary by type and by size.
(b) Also includes, wholesaling and retailing activity, contract drilling, petroleum pipelines and other services incidental to petroleum and natural gas products.
(c) Capital employed is defined as total assets less current liabilities. The net income figures used to compute rate of return on capital employed have been adjusted by adding the after-tax interest expense on borrowed funds.

A15 Reinvestment Rates in percent

	Total[a]		Upstream[b]		Upstream[c] plus Downstream	
	1989	1990	1989	1990	1989	1990
Integrateds & Refiners	83	75	72	54	71	56
Oil and Gas Producers						
Senior Producers	73	77	72	71	70	70
Junior Producers	116	121	124	125	124	125
Total Oil and Gas Producers	88	93	89	90	87	90
Total Industry	**86**	**86**	**84**	**78**	**80**	**75**
Canadian-Controlled	97	100	95	96	91	92
Foreign-Controlled	76	76	76	65	72	63

Notes:
(a) Total capital expenditures (net of incentive grants) as a percentage of total internal cash flow. The calculations do not reflect changes in inventories. Had changes in the cost of inventories been included, the reinvestment rate would have been 100% in 1990 vs. 92% in 1989.
(b) Upstream capital expenditures (net of incentive grants) in Canada as a percentage of upstream cash flow.
(c) Net upstream plus downstream ('petroleum-related') capital expenditures in Canada as a percentage of internal cash flow generated by petroleum-related activities.

A16 Gross Exploration Expenditures in Canada by Area in millions of dollars

	1989	1990	Change %
Provincial Lands			
British Columbia	333	474	42
Alberta	1674	1819	9
Saskatchewan	110	130	18
Other Provinces	8	8	4
Total Provincial Lands	**2125**	**2431**	**14**
Canada Lands			
Beaufort Sea	241	57	– 76
Labrador East	83	76	– 8
Atlantic Shelf South	19	26	35
Other Canada Lands	63	44	– 31
Total Canada Lands	**406**	**203**	**– 50**
Total Canada	**2531**	**2634**	**4**

A17 Well Completions and Metres Drilled in Canada

	Exploratory			Development		
	1989	1990	Change %	1989	1990	Change %
Well Completions in number of wells						
British Columbia	87	135	55	121	144	19
Alberta	1837	2166	18	1983	1876	– 5
Saskatchewan	432	394	– 9	991	964	– 3
Other Provinces	60	61	2	86	123	43
Northern Canada[a]	5	16	220	–	–	–
Offshore[b]	2	1	– 50	–	–	–
Total	**2423**	**2773**	**14**	**3181**	**3107**	**– 2**
Metres Drilled in thousands						
British Columbia	157	242	54	216	216	–
Alberta	2588	2968	15	2113	2132	1
Saskatchewan	344	398	16	753	834	11
Other Provinces	50	44	– 12	58	89	53
Northern Canada[a]	10	23	– 130	–	–	–
Offshore[b]	7	3	– 57	–	–	–
Total	**3158**	**3678**	**17**	**3140**	**3271**	**4**

Source:
Oilweek, February 18, 1991

Notes:
(a) All areas in Canada north of 60°, including Hudson Bay.
(b) East coast and West coast offshore areas.

A18 Comparison of Interest Charges with Income before Interest and Taxes: 1990 in millions of dollars[a]

	(1) Income Before Interest and Taxes	(2) Interest Charges Incurred	(3) Interest Coverage Ratio
			times
Integrateds and Refiners	**3414**	**1201**	**2.8**
Oil and Gas Producers			
Senior Producers	2293	876	2.6
Junior Producers	1032	528	2.0
Total Oil and Gas Producers	3326	1404	2.4
Total Industry	**6739**	**2605[b]**	**2.6**
Canadian-Controlled	2815	1237	2.3
Foreign-Controlled	3924	1368	2.9

Notes:
(a) The figures in Column 1 represent the total of income from total operations before taxes and expensed interest. Column 2 shows total interest charges incurred (both expensed and capitalized). Column 3 is the ratio of Column 1 to Column 2.
(b) In addition to the $2.5 billion of interest charges expensed in 1990, $140 million was capitalized.

A19 Dividend Payments

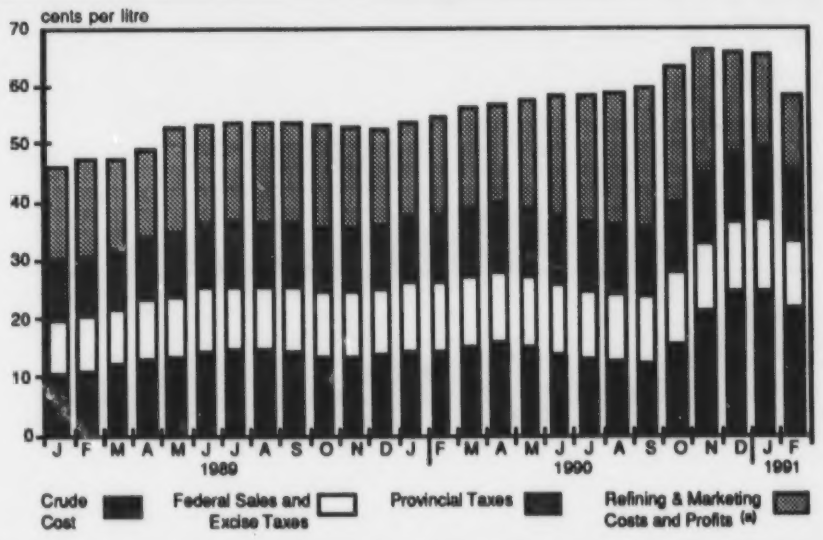
	1989	1990	1989	1990
	$ millions		% of net income[a]	
Integrateds and Refiners	**771**	**703**	**69**	**49**
Oil and Gas Producers				
Senior Producers	436	811	164	129
Junior Producers	156	152	-279	42
Total Oil and Gas Producers	592	963	281	97
Total Industry	**1363**	**1666**	**102**	**69**
Canadian-Controlled	554	640	114	61
Foreign-Controlled	809	1026	95	75

Note:
(a) Derived by dividing dividend payments for each company group by their net income on total operations (Appendices B1 to 7 and B10).

A20 **Income and Expense Statement** as percent of revenues

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Upstream										
Revenues	100	100	100	100	100	100	100	100	100	100
Royalties and other Payments	29	27	26	24	23	19	17	16	16	16
PGRT and other Taxes	6	9	8	8	7	3	–	–	–	–
Interest Expenses	–	7	6	6	6	10	9	9	7	6
Operating Costs and other Cash Items	20	19	18	18	20	32	29	38	37	33
Current Income Taxes	8	8	11	11	11	5	6	–	2	5
Cash Flow	30	26	31	32	34	32	38	37	37	39
Depreciation, Depletion and Amortization	8	8	12	10	11	25	20	24	24	22
Other Non-cash Charges	9	5	4	4	4	7	5	9	6	6
Deferred Income Tax	5	5	5	6	6	–	2	1	3	3
Extraordinary Gains	–	–	–	–	– 1	– 12	1	1	–	–
Net Income	9	9	11	11	12	– 11	11	5	4	9
Downstream										
Revenues	100	100	100	100	100	100	100	100	100	100
Sales, Excise and other Taxes	6	6	6	6	7	11	15	16	17	16
Cost of Goods Sold	75	80	83	80	79	68	64	58	59	61
Interest Expenses	–	1	1	1	1	–	–	–	1	1
Operating Costs and other Cash Items	9	10	10	9	10	13	13	14	15	14
Current Income Taxes	3	– 1	– 1	–	–	2	2	3	2	2
Cash Flow	7	4	3	3	3	6	6	9	7	6
Depreciation, Depletion and Amortization	1	2	2	2	3	2	3	3	3	3
Other Non-cash Charges	–	–	–	–	–	–	–	–	–	–
Deferred Income Tax	1	1	1	–	–	–	–	1	–	–
Extraordinary Gains	–	–	–	–	–	– 1	–	–	–	–
Net Income	4	1	–	1	1	3	3	5	3	3

A21 **Average Retail Price of Motor Gasoline in Canada** by components



Source:
Energy, Mines and Resources Canada, Oil and Gas Branch

Note:
(a) Refining and Marketing (R&M) costs and profits is the residual revenue available to recover the refining, marketing, transportation and distribution costs and to provide a return on investment and a dealer margin.

A22 Canadian Ownership and Control by Company Group and Category

in percent

	Ownership		Control	
	1989	1990	1989	1990
Petroleum Related Revenues[a]				
Integrateds and Refiners	43.9	44.6	30.6	32.6
Oil and Gas Producers	47.7	48.6	51.5	53.2
Total Industry	**44.9**	**45.7**	**36.1**	**38.1**
Upstream Revenues				
Integrateds and Refiners	39.9	39.0	19.4	20.5
Oil and Gas Producers	45.2	46.4	48.8	51.0
Total Industry	**43.4**	**44.0**	**39.0**	**40.9**
Other Measurement Bases				
Revenues				
Natural Gas	46.2	44.0	44.2	42.5
Crude Oil	43.3	43.5	37.0	39.1
Downstream	45.8	46.7	34.4	36.4
Exploration Expenditures	**49.4**	**52.1**	**46.8**	**53.3**
Total Assets in Canada	**48.7**	**49.2**	**42.7**	**44.5**

Note:
(a) Many petroleum companies have operations in non petroleum-related fields which are not included here. Upstream plus downstream revenues have been taken as a substitute for a more specifically defined figure reflecting every aspect of the Canadian petroleum industry.

A23 'In-house' R&D Expenditures in millions of dollars

	1989			1990		
	Corporate Funds[a]	Government Funds	Total	Corporate Funds[a]	Government Funds	Total
Upstream						
Conventional Exploration and Production	52.7	0.1	52.8	37.7	0.1	37.8
Enhanced Recovery	6.4	0	6.4	10.4	0.1	10.5
Bitumen						
Surface Mining	9.7	2.2	11.9	24.8	4.4	29.2
In-Situ	19.1	3.5	22.6	32.8	2.7	35.5
Total Bitumen	28.8	5.8	34.6	57.6	7.1	64.7
Total Upstream	87.9	5.9	93.8	105.7	7.3	113.0
Refining	63.9	0.1	64.0	62.2	0.1	62.3
Other						
Other Energy	22.6	1.0	23.6	6.8	0.3	7.2
Non Energy	5.3	0.2	5.5	2.8	0.6	3.4
Total Other	27.9	1.3	29.1	9.7	0.9	10.6
Total Expenditures	**179.7**	**7.2**	**186.9**	**177.6**	**8.3**	**185.8**

Note:
(a) Corporate funds are composed of internal funds, funds from subsidiaries and affiliates, and funds from others for contract work performed by the reporting energy enterprise.

Appendix B Complete Survey Results

B1

Income and Expense Statement – All Operations in millions of dollars
Total Industry

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Total Revenues	17509	20564	17.4	29031	33438	15.2	2613	2344	-10.3	1552	2041	31.5	50704	58387	15.2
Royalties & other Payments	2733	3212	17.5	0	0	–	0	0	–	0	0	–	2733	3212	17.5
Sales, Excise & other Taxes	0	0	–	4861	5431	11.7	4	13	227.2	108	154	42.6	4973	5599	12.6
Total Revenues after Royalties and Taxes	14776	17352	17.4	24170	28007	15.9	2609	2331	-10.6	1444	1887	30.7	42998	49577	15.3
Cost of Goods Sold	0	0	–	17149	20379	18.8	1207	1370	13.5	367	692	88.5	18723	22441	19.9
Interest Expenses	1306	1254	-4.0	303	339	11.7	892	806	-9.6	37	65	74.5	2539	2465	-2.9
Operating Costs	6371	6701	5.2	4121	4644	12.7	893	1103	23.5	357	401	12.2	11743	12849	9.4
R&D Costs (Excluding Oil Sands)	65	64	-2.2	98	99	1.4	1	1	-43.1	9	8	-9.8	173	172	-0.8
Other Expenses	121	118	-2.4	-2	-3	–	36	38	4.8	5	8	64.6	160	161	0.9
Oil Sands R&D Expensed	42	47	12.2	0	0	–	0	0	–	0	0	–	42	47	12.5
E&D Expensed	1097	1155	5.2	0	0	–	37	32	-13.4	111	107	-3.8	1245	1294	3.9
Depreciation	1172	1075	-8.3	807	978	21.1	130	287	120.1	61	67	11.0	2171	2407	10.9
Depletion	2301	2492	8.3	0	0	–	15	17	12.8	253	268	6.1	2569	2778	8.1
Write-Offs & Amortization	653	1004	53.7	30	18	-42.4	118	-334	–	45	2	-96.1	846	689	-18.6
Non-Cash Charges and E&D	5266	5773	9.6	838	995	18.3	301	2	-99.2	469	444	-5.3	6874	7215	5.0
Income before Taxes	1647	3442	109.0	1663	1553	-6.6	-722	-989	–	200	269	34.8	2787	4275	53.4
Federal Income Tax[1]	408	903	121.5	426	467	9.6	-233	-178	–	77	93	20.3	679	1285	89.4
Provincial Income Taxes	-40	228	–	167	177	6.5	-130	-113	–	1	2	204.8	-2	295	–
Current Income Taxes	368	1131	207.2	593	645	8.7	-363	-291	–	78	95	22.0	676	1580	133.6
Income after Current Income Taxes	1279	2311	80.7	1070	908	-15.1	-359	-698	–	122	174	43.1	2111	2695	27.7
Deferred Income Taxes	443	519	17.2	77	-20	–	-54	-287	–	38	39	2.3	503	251	-50.1
Net Income after Taxes	836	1792	114.3	993	928	-6.5	-305	-411	–	84	135	61.4	1608	2444	52.0
Extraordinary Items	-177	-34	–	-69	2	–	-37	-3	–	9	12	37.0	-274	-24	–
Net Income After Extraordinary Items	658	1758	166.9	925	930	0.6	-342	-414	–	92	147	59.1	1333	2420	81.5
Internal Cash Flow	6544	8083	23.5	1908	1903	-0.2	-58	-695	–	591	618	4.6	8984	9909	10.3

(1) Includes Large Corporations Tax.

B2

Income and Expense Statement – All Operations in millions of dollars
Integrateds and Refiners

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Total Revenues	5899	6802	15.3	28412	32799	15.4	1510	1480	-2.0	284	385	35.6	36105	41465	14.8
Royalties & other Payments	855	957	12.0	0	0	–	0	0	–	0	0	–	855	957	12.0
Sales, Excise & other Taxes	0	0	–	4861	5431	11.7	4	13	210.9	0	1	–	4866	5445	11.9
Total Revenues after Royalties and Taxes	5044	5844	15.9	23551	27368	16.2	1506	1467	-2.6	284	384	35.3	30384	35063	15.4
Cost of Goods Sold	0	0	–	16912	20116	18.9	1147	1187	3.5	209	324	55.0	18268	21627	18.4
Interest Expenses	80	41	-49.3	274	311	13.6	774	742	-4.2	0	20	–	1129	1113	-1.4
Operating Costs	2365	2435	3.0	3909	4415	13.0	265	564	112.4	25	33	33.6	6564	7447	13.5
R&D Costs (Excluding Oil Sands)	48	57	17.2	98	99	1.4	0	0	–	0	0	–	147	156	6.5
Other Expenses	13	8	-40.7	-3	-3	–	6	46	–	0	0	–	16	51	211.4
Oil Sands R&D Expensed	19	28	50.0	0	0	–	0	0	–	0	0	–	19	28	50.0
E&D Expensed	325	359	10.4	0	0	–	18	5	-73.3	38	38	-1.3	381	402	5.3
Depreciation	385	310	-19.6	747	914	22.5	56	185	229.7	2	3	96.2	1190	1413	18.7
Depletion	363	300	-17.4	0	0	–	1	1	-15.9	13	16	21.7	378	317	-16.0
Write-Offs & Amortization	313	490	56.5	31	19	-38.8	-50	-290	–	7	-11	–	301	208	-30.9
Non-Cash Charges and E&D	1406	1487	5.8	778	934	20.0	25	-99	–	60	46	-22.9	2269	2368	4.4
Income before Taxes	1132	1817	60.6	1583	1495	-5.5	-712	-972	–	-11	-40	–	1992	2300	15.5
Federal Income Tax(1)	277	454	63.7	431	456	5.7	-255	-175	–	7	11	51.3	460	746	62.0
Provincial Income Taxes	117	197	68.5	161	172	7.2	-131	-107	–	0	4	–	147	267	82.1
Current Income Taxes	394	651	65.1	592	628	6.1	-387	-282	–	7	15	108.0	607	1013	66.9
Income after Current Income Taxes	738	1166	58.1	991	867	-12.5	-326	-690	–	-18	-55	–	1385	1288	-7.0
Deferred Income Taxes	87	118	34.9	55	-23	–	-1	-232	–	-2	-6	–	140	-143	–
Net Income after Taxes	650	1048	61.2	936	891	-4.8	-325	-459	–	-16	-49	–	1245	1431	14.9
Extraordinary Items	0	0	–	-69	2	–	-54	-3	–	0	0	–	-122	-1	–
Net Income After Extraordinary Items	650	1048	61.2	867	892	2.9	-379	-462	–	-16	-49	–	1123	1429	27.3
Internal Cash Flow	2143	2653	23.8	1769	1801	1.8	-300	-790	–	42	-9	–	3654	3655	–

(1) Includes Large Corporations Tax.

B3

Income and Expense Statement – All Operations in millions of dollars

Junior Oil and Gas Producers

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Total Revenues	3712	4661	25.6	40	41	1.9	271	257	-4.9	481	575	19.5	4504	5534	22.9
Royalties & other Payments	637	828	30.1	0	0	–	0	0	–	0	0	–	637	828	30.1
Sales, Excise & other Taxes	0	0	–	0	0	–	0	0	–	32	55	75.1	32	56	76.9
Total Revenues after Royalties and Taxes	3075	3833	24.6	40	41	1.9	271	257	-5.1	449	520	15.6	3836	4650	21.2
Cost of Goods Sold	0	0	–	0	0	–	3	3	10.3	0	0	–	3	3	10.3
Interest Expenses	449	474	5.7	3	0	-97.7	35	37	7.9	8	5	-39.2	494	516	4.5
Operating Costs	1166	1329	13.9	29	39	31.4	129	161	24.1	161	172	7.0	1486	1701	14.4
R&D Costs (Excluding Oil Sands)	0	1	206.5	0	0	–	0	0	–	0	0	–	0	1	213.5
Other Expenses	96	85	-11.1	1	0	-99.8	15	2	-89.0	6	6	7.2	117	93	-20.8
Oil Sands R&D Expensed	2	1	-28.0	0	0	–	0	0	–	0	0	–	2	1	-28.0
E&D Expensed	118	134	13.5	0	0	–	0	0	–	1	0	-41.3	118	134	13.2
Depreciation	195	215	10.4	6	6	2.1	15	16	5.2	14	18	24.3	230	255	10.7
Depletion	1010	1208	19.6	0	0	–	0	0	–	106	121	13.8	1116	1329	19.0
Write-Offs & Amortization	66	71	7.1	1	0	-60.6	12	5	-56.3	35	25	-27.5	114	102	-10.8
Non-Cash Charges and E&D	1391	1629	17.1	7	6	-7.2	27	21	-22.3	156	164	5.3	1580	1820	15.2
Income before Taxes	-27	315	–	0	-4	–	61	33	-46.5	119	172	44.4	154	516	235.1
Federal Income Tax(1)	49	67	37.5	0	0	–	18	16	-11.4	35	37	5.8	102	120	17.7
Provincial Income Taxes	-149	-96	–	0	0	–	1	-1	–	0	0	–	-148	-97	–
Current Income Taxes	-100	-29	–	0	0	–	19	15	-21.1	35	37	6.6	-46	23	–
Income after Current Income Taxes	74	344	368.3	–	-4	–	42	18	-58.0	85	135	60.0	200	493	146.7
Deferred Income Taxes	43	124	187.8	0	0	–	-2	-8	–	5	19	249.5	46	135	191.7
Net Income after Taxes	30	220	–	–	-4	–	44	26	-41.8	79	117	47.0	154	358	133.1
Extraordinary Items	-219	5	–	0	0	–	-1	0	–	11	0	-100.0	-210	5	–
Net Income After Extraordinary Items	-189	225	–	–	-4	–	43	26	-40.0	90	117	29.1	-56	363	–
Internal Cash Flow	1464	1973	34.8	7	2	-67.3	69	39	-43.9	240	299	24.6	1780	2314	30.0

(1) Includes Large Corporations Tax.

B4

Income and Expense Statement – All Operations in millions of dollars
Senior Oil and Gas Producers

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Total Revenues	7897	9101	15.2	579	598	3.4	832	607	-27.0	787	1081	37.4	10095	11387	12.8
Royalties & other Payments	1241	1426	14.9	0	0	–	0	0	–	0	0	–	1241	1426	14.9
Sales, Excise & other Taxes	0	0	–	0	0	–	0	0	–	76	97	28.0	76	97	28.0
Total Revenues after Royalties and Taxes	6657	7675	15.3	579	598	3.4	832	607	-27.0	711	984	38.4	8778	9864	12.4
Cost of Goods Sold	0	0	–	236	263	11.3	58	180	212.1	158	368	132.8	452	811	79.4
Interest Expenses	777	739	-4.9	26	28	6.1	83	27	-67.1	30	41	37.1	916	835	-8.8
Operating Costs	2840	2937	3.4	183	191	3.9	498	379	-24.0	171	195	13.9	3693	3702	0.2
R&D Costs (Excluding Oil Sands)	17	7	-60.8	0	0	–	1	0	-66.4	9	8	-9.8	26	15	-43.8
Other Expenses	12	25	104.6	0	0	–	15	-9	–	-1	2	–	26	18	-33.0
Oil Sands R&D Expensed	21	17	-18.3	0	0	–	0	0	–	0	0	–	21	18	-17.7
E&D Expensed	655	662	1.2	0	0	–	19	28	42.1	72	68	-4.9	746	758	1.7
Depreciation	592	550	-7.1	55	57	4.0	59	86	45.5	45	47	3.7	751	740	-1.5
Depletion	928	984	6.1	0	0	–	14	16	14.9	133	131	-1.7	1075	1132	5.2
Write-Offs & Amortization	274	443	61.7	-2	-2	–	155	-50	–	3	-12	–	431	379	-12.0
Non-Cash Charges and E&D	2469	2657	7.6	53	55	3.9	248	80	-67.6	254	234	-7.7	3024	3026	0.1
Income before Taxes	542	1310	141.8	79	61	-22.7	-71	-50	–	91	137	50.3	641	1458	127.4
Federal Income Tax(1)	82	383	365.4	-5	11	–	4	-20	–	35	45	28.0	117	420	259.4
Provincial Income Taxes	-8	127	–	6	5	-11.3	1	-5	–	1	-2	–	-1	125	–
Current Income Taxes	74	510	–	1	16	–	5	-25	–	36	43	19.3	116	545	370.6
Income after Current Income Taxes	468	800	71.1	79	45	-42.9	-76	-25	–	55	94	70.6	525	914	73.9
Deferred Income Taxes	312	277	-11.4	21	3	-86.4	-51	-47	–	34	26	-24.2	317	259	-18.3
Net Income after Taxes	155	523	236.8	58	42	-26.9	-25	22	–	21	68	227.9	209	655	213.6
Extraordinary Items	42	-39	–	0	0	–	18	0	-100.0	-2	12	–	58	-27	–
Net Income After Extraordinary Items	197	485	145.8	58	42	-26.9	-6	22	–	18	79	337.0	267	628	135.5
Internal Cash Flow	2937	3457	17.7	132	100	-24.0	172	55	-68.0	309	328	6.3	3550	3940	11.0

(1) Includes Large Corporations Tax.

B5

Income and Expense Statement – All Operations in millions of dollars

Total Oil and Gas Producers

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Total Revenues	11609	13762	18.5	619	639	3.3	1103	864	-21.6	1268	1656	30.6	14599	16922	15.9
Royalties & other Payments	1878	2254	20.1	0	0	–	0	0	–	0	0	–	1878	2254	20.1
Sales, Excise & other Taxes	0	0	–	0	0	–	0	0	–	108	153	41.8	108	153	42.3
Total Revenues after Royalties and Taxes	9732	11508	18.2	619	639	3.3	1103	864	-21.6	1160	1503	29.6	12614	14514	15.1
Cost of Goods Sold	0	0	–	236	263	11.3	61	183	202.4	158	368	132.8	455	814	78.9
Interest Expenses	1225	1213	-1.0	30	28	-5.8	118	65	-45.0	37	45	21.6	1410	1351	-4.2
Operating Costs	4006	4267	6.5	213	229	7.7	628	539	-14.1	332	368	10.6	5179	5402	4.3
R&D Costs (Excluding Oil Sands)	17	7	-57.6	0	0	–	1	0	-63.7	9	8	-9.8	26	15	-41.8
Other Expenses	108	110	2.2	1	0	-99.8	30	-8	–	5	8	69.7	144	111	-23.0
Oil Sands R&D Expensed	23	19	-18.9	0	0	–	0	0	–	0	0	–	23	19	-18.3
E&D Expensed	772	796	3.0	0	0	–	19	28	42.1	73	69	-5.2	864	892	3.2
Depreciation	787	765	-2.8	61	63	3.8	74	102	37.3	59	64	8.6	981	995	1.4
Depletion	1938	2192	13.1	0	0	–	14	16	14.9	240	252	5.2	2192	2461	12.3
Write-Offs & Amortization	340	514	51.1	-1	-2	–	168	-44	–	38	13	-65.9	545	481	-11.8
Non-Cash Charges and E&D	3800	4286	11.0	60	62	2.7	276	102	-63.1	409	398	-2.7	4605	4847	5.3
Income before Taxes	515	1625	215.4	80	58	-27.7	-10	-17	–	210	309	47.0	795	1974	148.3
Federal Income Tax(1)	131	450	243.6	-5	12	–	23	-3	–	70	82	17.0	219	540	146.8
Provincial Income Taxes	-157	31	–	6	5	-11.8	1	-6	–	1	-2	–	-149	28	–
Current Income Taxes	-26	480	–	1	17	–	24	-10	–	71	80	13.0	70	567	–
Income after Current Income Taxes	541	1144	111.5	78	41	-48.0	-34	-8	–	140	229	64.1	725	1407	93.9
Deferred Income Taxes	355	401	12.8	21	3	-85.4	-53	-55	–	40	45	13.0	363	394	8.5
Net Income after Taxes	186	743	300.3	57	38	-34.1	20	47	143.1	100	184	84.5	363	1013	179.5
Extraordinary Items	-177	-34	–	0	0	–	17	0	-100.0	9	12	37.0	-152	-22	–
Net Income After Extraordinary Items	8	709	–	57	38	-34.1	37	47	29.8	108	196	80.7	211	991	370.3
Internal Cash Flow	4401	5430	23.4	138	102	-26.0	242	94	-61.1	549	627	14.3	5330	6254	17.3

(1) Includes Large Corporations Tax.

B6

Income and Expense Statement – All Operations in millions of dollars
Canadian-Controlled Companies

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Total Revenues	6948	8415	21.1	10075	12156	20.7	1702	1608	-5.5	634	767	20.9	19358	22946	18.5
Royalties & other Payments	991	1229	24.0	0	0	–	0	0	–	0	0	–	991	1229	24.0
Sales, Excise & other Taxes	0	0	–	1681	2020	20.2	4	13	207.1	51	72	40.6	1737	2105	21.2
Total Revenues after Royalties and Taxes	5957	7186	20.6	8394	10136	20.8	1697	1595	-6.0	583	695	19.2	16631	19612	17.9
Cost of Goods Sold	0	0	–	5896	7590	28.7	1086	1115	2.6	94	142	50.9	7076	8847	25.0
Interest Expenses	611	692	13.2	202	163	-19.0	266	297	11.6	15	42	171.7	1095	1194	9.1
Operating Costs	2578	2806	8.8	1432	1494	4.3	375	381	1.6	150	173	15.4	4534	4853	7.0
R&D Costs (Excluding Oil Sands)	2	0	-100.0	0	11	–	0	0	–	0	0	–	2	11	–
Other Expenses	48	56	17.3	3	4	21.9	17	3	-82.0	12	9	-23.5	81	73	-9.5
Oil Sands R&D Expensed	4	2	-44.3	0	0	–	0	0	–	0	0	–	4	2	-44.3
E&D Expensed	221	264	19.4	0	0	–	10	11	7.5	89	88	-1.6	320	362	13.2
Depreciation	534	483	-9.7	344	419	21.7	42	51	22.9	54	59	8.8	974	1011	3.8
Depletion	1256	1469	17.0	0	0	–	9	6	-36.1	130	113	-12.7	1395	1588	13.9
Write-Offs & Amortization	59	85	44.9	10	-8	–	1	-23	–	28	-5	–	98	49	-49.8
Non-Cash Charges and E&D	2073	2303	11.1	354	411	16.1	61	44	-28.2	302	255	-15.4	2791	3013	8.0
Income before Taxes	644	1329	106.3	507	463	-8.7	-108	-245	–	10	74	–	1053	1621	54.0
Federal Income Tax(1)	167	240	44.1	124	149	20.1	-82	-57	–	45	45	1.8	253	377	49.1
Provincial Income Taxes	-85	-33	–	34	43	24.7	-39	-38	–	1	2	204.0	-89	-27	–
Current Income Taxes	82	207	153.8	158	192	21.1	-121	-96	–	45	47	4.5	164	351	113.4
Income after Current Income Taxes	563	1122	99.4	348	271	-22.3	13	-149	–	-35	27	–	888	1270	43.0
Deferred Income Taxes	102	321	215.0	49	-22	–	37	-72	–	-2	-6	–	185	221	19.2
Net Income after Taxes	461	801	73.8	300	293	-2.3	-25	-77	–	-33	33	–	703	1049	49.3
Extraordinary Items	-186	5	–	0	0	–	-41	-3	–	9	0	-100.0	-219	2	–
Net Income After Extraordinary Items	274	806	193.6	300	293	-2.3	-66	-80	–	-24	33	–	484	1051	117.0
Internal Cash Flow	2636	3424	29.9	703	682	-3.0	74	-105	–	266	282	5.9	3679	4283	16.4

(1) Includes Large Corporations Tax.

B7

Income and Expense Statement – All Operations in millions of dollars
Foreign-Controlled Companies

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Total Revenues	10561	12148	15.0	18957	21282	12.3	911	736	-19.2	918	1274	38.8	31346	35441	13.1
Royalties & other Payments	1742	1983	13.8	0	0	–	0	0	–	0	0	–	1742	1983	13.8
Sales, Excise & other Taxes	0	0	–	3180	3412	7.3	0	1	–	56	82	44.4	3237	3494	7.9
Total Revenues after Royalties and Taxes	8819	10166	15.3	15776	17871	13.3	911	736	-19.3	861	1192	38.5	26368	29965	13.6
Cost of Goods Sold	0	0	–	11253	12790	13.7	121	255	111.5	273	550	101.4	11647	13595	16.7
Interest Expenses	695	562	-19.1	102	176	72.7	626	509	-18.7	22	24	7.5	1444	1270	-12.0
Operating Costs	3793	3896	2.7	2690	3150	17.1	519	722	39.3	208	228	9.9	7209	7996	10.9
R&D Costs (Excluding Oil Sands)	64	64	0.2	98	88	-10.3	1	1	-43.1	9	8	-9.8	171	160	-6.5
Other Expenses	73	62	-15.4	-6	-7	–	19	35	80.3	-8	-2	–	79	88	11.5
Oil Sands R&D Expensed	38	45	17.5	0	0	–	0	0	–	0	0	–	38	45	17.8
E&D Expensed	876	891	1.7	0	0	–	27	22	-20.9	22	19	-13.0	925	931	0.7
Depreciation	638	592	-7.1	463	559	20.6	89	236	165.5	7	9	28.6	1197	1396	16.6
Depletion	1045	1023	-2.1	0	0	–	8	12	81.3	123	155	25.9	1175	1190	1.3
Write-Offs & Amortization	595	919	54.5	21	25	23.5	117	-311	–	16	6	-59.9	748	640	-14.5
Non-Cash Charges and E&D	3192	3470	8.7	484	584	20.7	240	-42	–	168	199	12.8	4083	4201	2.9
Income before Taxes	1003	2113	110.7	1156	1090	-5.7	-614	-745	–	190	195	2.8	1734	2654	53.0
Federal Income Tax(1)	241	664	174.8	302	318	5.3	-150	-121	–	33	48	45.6	426	908	113.3
Provincial Income Taxes	45	261	–	132	135	1.8	-91	-74	–	0	0	208.7	86	321	271.8
Current Income Taxes	287	924	222.5	434	453	4.2	-242	-196	–	33	48	46.3	512	1229	140.0
Income after Current Income Taxes	716	1189	66.0	721	638	-11.6	-372	-549	–	157	147	-6.3	1222	1424	16.5
Deferred Income Taxes	341	198	-41.9	28	2	-91.5	-92	-215	–	40	44	10.8	318	30	-90.6
Net Income after Taxes	375	991	164.1	693	635	-8.4	-280	-334	–	117	103	-12.1	905	1395	54.1
Extraordinary Items	9	-39	–	-69	2	–	4	0	-100.0	0	12	–	-56	-26	–
Net Income After Extraordinary Items	384	952	147.8	625	637	1.9	-276	-334	–	117	114	-2.1	849	1369	61.2
Internal Cash Flow	3908	4659	19.2	1205	1222	1.4	-132	-590	–	324	336	3.6	5305	5626	6.0

(1) Includes Large Corporations Tax.

B8

Financial Performance for Main Business Segments

Upstream Operations

	Total Industry			Canadian-Controlled			Foreign-Controlled		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Production of Oil Equivalent[1] in thousands of cubic metres	180878	180887	–	72944	75142	3.0	107934	105745	-2.0
Key Financial Items in millions of dollars			%			%			%
Sales before Royalties and Taxes	17057	19933	16.9	6647	8114	22.1	10410	11819	13.5
Other Revenues	452	634	40.2	301	304	1.1	151	329	118.2
Gross Revenues	17509	20564	17.4	6948	8415	21.1	10561	12148	15.0
Internal Cash Flow	6544	8083	23.5	2636	3424	29.9	3908	4659	19.2
Net Income	836	1792	114.3	461	801	73.8	375	991	164.1
Net Income plus Interest	2142	3046	42.2	1072	1493	39.3	1070	1553	45.1
Capital Employed	55211	54358	-1.5	24258	24376	0.5	30953	29982	-3.1
Unit Revenues and Costs in dollars per cubic metre			%			%			%
Sales before Royalties and Taxes[2]	94.30	110.19	16.9	91.12	107.98	18.5	96.45	111.77	15.9
Other Revenues	2.50	3.50	40.2	4.13	4.05	-1.8	1.40	3.11	122.7
Gross Revenues	96.80	113.68	17.4	95.25	111.99	17.6	97.85	114.88	17.4
Royalties & Other Payments	15.11	17.76	17.5	13.59	16.36	20.4	16.14	18.75	16.2
Revenues after Royalties & Taxes	81.69	95.93	17.4	81.66	95.63	17.1	81.71	96.14	17.7
Interest Expenses	7.22	6.93	-4.0	8.38	9.21	9.9	6.44	5.31	-17.4
Operating Costs (excluding Research)	35.22	37.05	5.2	35.35	37.34	5.6	35.14	36.84	4.8
Research & Other Expenses	1.03	1.01	-2.3	0.68	0.75	10.2	1.27	1.19	-6.2
Cash Income before Taxes	38.22	50.94	33.3	37.25	48.33	29.7	38.87	52.80	35.8
E&D & Oil Sands R&D Expensed	6.30	6.64	5.5	3.08	3.54	14.9	8.47	8.85	4.4
Depreciation	6.48	5.94	-8.3	7.33	6.42	-12.3	5.91	5.60	-5.2
Depletion	12.72	13.78	8.3	17.22	19.55	13.6	9.69	9.68	-0.1
Write-offs	3.61	5.55	53.7	0.80	1.13	40.7	5.51	8.69	57.7
Net Income Before Taxes	9.11	19.03	109.0	8.83	17.69	100.3	9.29	19.98	115.1
Federal Income Tax[3]	2.26	4.99	121.4	2.28	3.19	39.8	2.24	6.28	180.5
Provincial Income Taxes	-0.22	1.26	–	-1.16	-0.44	–	0.42	2.46	–
Deferred Income Taxes	2.45	2.87	17.2	1.40	4.27	205.8	3.16	1.87	-40.7
Net Income after Taxes	4.62	9.90	114.3	6.32	10.66	68.8	3.48	9.37	169.5
Extraordinary Items	-0.98	-0.19	–	-2.55	0.06	–	0.08	-0.37	–
Net Income after Extraordinary Items	3.64	9.72	166.9	3.76	10.72	185.0	3.56	9.00	153.0
Internal Cash Flow	36.18	44.69	23.5	36.14	45.57	26.1	36.21	44.06	21.7
Ratios in percent									
Natural Gas as a percent of Total Production	47.6	49.2	N/A	53.4	53.9	N/A	43.7	45.9	N/A

(1) The conversion to oil equivalent is based on heating content; excludes NGL production from reprocessing plants and sulphur.
(2) Includes revenues from sales of NGLs from reprocessing plants and resale of purchased products.
(3) Includes Large Corporations Tax.

B8(continued)

Financial Performance for Main Business Segments

Upstream Operations

	Integrateds/Refiners			Junior O&G Producers			Senior O&G Producers		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Production of Oil Equivalent(1) in thousands of cubic metres	58191	55706	-4.3	44581	49361	10.7	78107	75820	-2.9
Key Financial Items in millions of dollars			%			%			%
Sales before Royalties and Taxes	5811	6670	14.8	3489	4447	27.4	7757	8816	13.7
Other Revenues	88	132	49.2	223	217	-2.6	141	285	102.5
Gross Revenues	5899	6802	15.3	3712	4661	25.6	7897	9101	15.2
Internal Cash Flow	2143	2653	23.8	1464	1973	34.8	2937	3457	17.7
Net Income	650	1048	61.2	30	220	–	155	523	236.8
Net Income plus Interest	731	1089	49.0	479	694	44.9	932	1262	35.4
Capital Employed	16809	15926	-5.3	15563	15414	-1.0	22839	23017	0.8
Unit Revenues and Costs in dollars per cubic metre			%			%			%
Sales before Royalties and Taxes(2)	99.86	119.73	19.9	78.27	90.09	15.1	99.31	116.28	17.1
Other Revenues	1.52	2.37	55.8	5.00	4.40	-12.0	1.80	3.75	108.6
Gross Revenues	101.38	122.10	20.4	83.26	94.43	13.4	101.11	120.03	18.7
Royalties & Other Payments	14.70	17.19	16.9	14.28	16.78	17.5	15.89	18.81	18.4
Revenues after Royalties & Taxes	86.68	104.91	21.0	68.98	77.65	12.6	85.23	101.23	18.8
Interest Expenses	1.38	0.73	-47.1	10.07	9.61	-4.5	9.94	9.75	-2.0
Operating Costs (excluding Research)	40.64	43.71	7.6	26.17	26.93	2.9	36.36	38.74	6.6
Research & Other Expenses	1.05	1.15	9.6	2.15	1.73	-19.3	0.37	0.42	13.0
Cash Income before Taxes	43.61	59.32	36.0	30.60	39.38	28.7	38.55	52.31	35.7
E&D & Oil Sands R&D Expensed	5.91	6.95	17.6	2.67	2.73	2.0	8.65	8.96	3.6
Depreciation	6.62	5.56	-16.0	4.38	4.37	-0.3	7.58	7.25	-4.3
Depletion	6.24	5.38	-13.8	22.66	24.48	8.0	11.88	12.98	9.3
Write-offs	5.39	8.80	63.4	1.48	1.43	-3.3	3.51	5.84	66.6
Net Income Before Taxes	19.45	32.62	67.7	-0.59	6.38	–	6.94	17.28	149.1
Federal Income Tax(3)	4.76	8.14	71.0	1.09	1.35	24.1	1.05	5.05	379.5
Provincial Income Taxes	2.01	3.54	76.0	-3.33	-1.95	–	-0.10	1.67	–
Deferred Income Taxes	1.50	2.12	41.0	0.97	2.52	159.9	4.00	3.65	-8.7
Net Income after Taxes	11.17	18.82	68.4	0.68	4.46	–	1.99	6.90	247.0
Extraordinary Items	0.00	0.00	–	-4.92	0.10	–	0.53	-0.51	–
Net Income after Extraordinary Items	11.17	18.82	68.4	-4.23	4.56	–	2.52	6.39	153.2
Internal Cash Flow	36.83	47.63	29.3	32.84	39.98	21.7	37.60	45.59	21.2
Ratios in percent									
Natural Gas as a percent of Total Production	36.6	37.7	N/A	62.7	62.5	N/A	47.2	49.1	N/A

(1) The conversion to oil equivalent is based on heating content; excludes NGL production from reprocessing plants and sulphur.
(2) Includes revenues from sales of NGLs from reprocessing plants and resale of purchased products.
(3) Includes Large Corporations Tax.

B9

Financial Performance for Main Business Segments

Downstream Operations

Key Financial Items in millions of dollars	Total Downstream 1989	Total Downstream 1990	Total Downstream Change %	Total Oil Products 1989	Total Oil Products 1990	Total Oil Products Change %	Petrochemicals and Other 1989	Petrochemicals and Other 1990	Petrochemicals and Other Change %
Revenues before Sales, Excise & other Taxes	28208	32406	14.9	24999	28620	14.5	3208	3785	18.0
Other Revenues	824	1033	25.4	772	1016	31.6	51	17	-67.5
Total Revenues	29031	33438	15.2	25772	29636	15.0	3260	3802	16.6
Sales, Excise & other Taxes	4861	5431	11.7	4860	5429	11.7	2	2	39.9
Cost of Goods Sold	17149	20379	18.8	15188	17839	17.5	1961	2540	29.6
Operating Costs	4121	4644	12.7	3668	4046	10.3	453	598	32.0
R&D Costs (excluding Oil Sands)	98	99	1.4	64	64	0.2	34	35	3.6
Other Expenses	-2	-3	-	-3	-1	-	1	-2	-
Cash Income before Interest and Taxes	2804	2887	3.0	1994	2259	13.3	810	628	-22.5
Interest Expenses	303	339	11.7	220	307	39.9	84	31	-62.4
Cash Income before Taxes	2501	2548	1.9	1775	1952	10.0	726	596	-17.9
Current Income Taxes	593	645	8.7	450	520	15.7	143	124	-13.1
Internal Cash Flow	1908	1903	-0.2	1325	1432	8.0	583	472	-19.0
Depreciation & other Non-cash Charges	838	995	18.8	640	769	20.2	198	226	14.2
Income after Current Income Taxes	1070	908	-15.1	685	663	-3.3	385	246	-36.2
Deferred Income Taxes	77	-20	-	24	9	-64.1	53	-29	-
Net Income after Taxes	993	928	-6.5	661	654	-1.1	332	274	-17.4
Extraordinary Items	-69	2	-	-69	2	-	0	0	-
Net Income after Extraordinary Items	925	930	0.6	592	656	10.6	332	274	-17.4

Unit Revenues and Costs in dollars per cubic metre	Total Oil Products(1) 1989	Total Oil Products(1) 1990	Total Oil Products(1) Change %	National Refiners-Marketers 1989	National Refiners-Marketers 1990	National Refiners-Marketers Change %	Regional Refiners-Marketers 1989	Regional Refiners-Marketers 1990	Regional Refiners-Marketers Change %
Revenues before Sales, Excise & other Taxes	281.50	327.96	16.5	284.34	330.03	16.1	275.42	323.83	17.6
Other Revenues	8.70	11.64	33.9	9.70	13.42	38.4	6.55	8.12	23.9
Total Revenues	290.20	339.60	17.0	294.03	343.45	16.8	281.97	331.95	17.7
Sales, Excise & other Taxes	54.73	62.21	13.7	55.34	62.55	13.0	53.40	61.55	15.3
Cost of Goods Sold	171.02	204.42	19.5	171.23	203.14	18.6	170.57	206.96	21.3
Operating Costs	41.31	46.36	12.2	46.54	53.41	14.8	30.08	32.36	7.6
R&D Costs (excluding Oil Sands)	0.72	0.73	1.9	1.00	1.11	11.2	0.13	-0.01	-
Other Expenses	-0.03	-0.01	-	-0.09	-0.09	-	0.10	0.14	46.2
Cash Income before Interest and Taxes	22.46	25.89	15.3	20.02	23.35	16.6	27.69	30.94	11.7
Interest Expenses	2.47	3.52	42.4	0.01	0.00	-40.5	7.77	10.51	35.2
Cash Income before Taxes	19.98	22.37	11.9	20.01	23.34	16.6	19.92	20.43	2.5
Current Income Taxes	5.06	5.96	17.7	5.98	7.29	21.9	3.09	3.33	7.5
Internal Cash Flow	14.92	16.40	9.9	14.03	16.05	14.4	16.82	17.10	1.6
Depreciation & other Non-cash Charges	7.20	8.81	22.3	6.76	8.38	23.9	8.16	9.67	18.6
Income after Current Income Taxes	7.72	7.59	-1.6	7.27	7.68	5.6	8.67	7.43	-14.3
Deferred Income Taxes	0.27	0.10	-63.5	-0.35	-0.64	-	1.61	1.56	-3.3
Net Income after Taxes	7.44	7.49	0.7	7.63	8.31	9.0	7.05	5.87	-16.8
Extraordinary Items	-0.77	0.02	-	0.00	0.00	-	-2.43	0.05	-
Net Income after Extraordinary Items	6.67	7.51	12.6	7.63	8.31	9.0	4.62	5.92	28.0

Ratios in percent			Change			Change			Change
'Clean Products' Sales As a percent of Total Sales Volume	80.80	78.67	-2.6	81.25	79.54	-2.1	79.85	76.95	-3.6
Net Sales in Canada As a percent of Total Sales Volume	91.55	90.82	-0.8	93.63	94.26	0.7	87.08	83.99	-3.5
Export Sales As a percent of Total Sales Volume	7.12	9.09	27.8	5.27	5.73	8.8	11.09	15.77	42.2

(1) The calculation of unit revenues and costs is based on total sales volume.

B10

Sources and Uses of Funds in millions of dollars

	Total Industry			Canadian-Controlled			Foreign-Controlled		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Internal Cash Flow	8984	9909	10.3	3679	4283	16.4	5305	5626	6.0
Net Increase in Long-term Debt	5344	2602	-51.3	1545	1552	0.5	3800	1050	-72.4
Issue of Shares	3036	1372	-54.8	1417	1117	-21.2	1619	256	-84.2
Incentives, Grants and Tax Credits	222	95	-57.3	110	42	-61.6	111	52	-52.9
All Other Sources	3902	4548	16.6	2065	2244	8.7	1837	2304	25.4
Working Capital Decrease	1590	1228	-22.8	679	570	-16.0	911	658	-27.8
Total Sources of Funds	23078	19754	-14.4	9495	9809	3.3	13583	9946	-26.8
Total Capital Expenditures in Canada	7388	7993	8.2	3322	3969	19.5	4066	4024	-1.1
Capital Expenditures in U.S.A.	130	153	17.5	98	89	-8.8	32	63	98.1
Other Foreign Capital Expenditures	404	501	23.9	264	284	7.7	141	217	54.3
Total Foreign Capital Expenditures	534	654	22.4	362	373	3.3	173	280	62.4
Total Company Capital Expenditures	7922	8646	9.1	3684	4343	17.9	4239	4304	1.5
Dividends:									
Common Shares	1087	1382	27.1	319	387	21.3	768	996	29.6
Preferred Shares	276	284	2.9	235	254	8.0	41	30	-26.5
Total	1363	1666	22.2	554	640	15.7	809	1026	26.7
Reduction of Equity	831	692	-16.7	661	451	-31.8	169	241	42.4
Total Dividend & Equity Reduction	2194	2358	7.5	1215	1091	-10.2	979	1267	29.4
Net Decrease in Long-term Debt	1999	3126	56.3	703	952	35.3	1296	2174	67.7
All Other Applications	9427	3835	-59.3	2877	2292	-20.3	6549	1543	-76.4
Working Capital Increase	1536	1789	16.5	1016	1131	11.3	520	658	26.5
Total Applications of Funds	23078	19754	-14.4	9495	9809	3.3	13583	9946	-26.8

	Integrateds/Refiners			Junior O&G Producers			Senior O&G Producers		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Internal Cash Flow	3654	3655	-	1780	2314	30.0	3550	3940	11.0
Net Increase in Long-term Debt	3833	660	-82.8	913	639	-30.1	598	1304	118.0
Issue of Shares	1405	383	-72.7	1347	819	-39.2	284	170	-40.1
Incentives, Grants and Tax Credits	28	36	26.5	105	15	-85.6	89	44	-50.3
All Other Sources	1253	2494	99.1	1250	999	-20.1	1399	1055	-24.6
Working Capital Decrease	791	412	-47.9	512	586	14.4	287	230	-19.9
Total Sources of Funds	10964	7640	-30.3	5907	5371	-9.1	6207	6744	8.6
Total Capital Expenditures in Canada	2981	2681	-10.1	1966	2568	30.6	2441	2744	12.4
Capital Expenditures in U.S.A.	5	4	-10.2	34	10	-71.4	91	139	52.0
Other Foreign Capital Expenditures	71	84	19.2	180	229	27.3	154	188	22.2
Total Foreign Capital Expenditures	76	89	17.4	213	238	11.6	245	327	33.3
Total Company Capital Expenditures	3057	2770	-9.4	2179	2806	28.8	2687	3070	14.3
Dividends:									
Common Shares	687	607	-11.7	81	100	23.6	319	675	111.6
Preferred Shares	84	96	14.8	75	52	-30.9	117	136	15.9
Total	771	703	-8.8	156	152	-2.5	436	811	85.9
Reduction of Equity	544	600	10.4	159	49	-69.5	128	43	-66.2
Total Dividend & Equity Reduction	1314	1303	-0.9	315	201	-36.3	564	855	51.4
Net Decrease in Long-term Debt	468	1504	221.6	595	812	36.4	937	810	-13.5
All Other Applications	5671	1002	-82.3	2369	1148	-51.5	1387	1685	21.5
Working Capital Increase	454	1061	133.6	449	404	-10.0	633	324	-48.8
Total Applications of Funds	10964	7640	-30.3	5907	5371	-9.1	6207	6744	8.6

B11

Upstream Canadian Capital Expenditures by Location in millions of dollars

	Total Canadian			Provinces			Canada Lands		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Total Industry									
Land & Lease, Geological & Geophysical	1279	1406	9.9	1181	1344	13.7	98	63	-35.9
Exploration Drilling	1252	1227	-2.0	943	1087	15.2	308	140	-54.5
Total Exploration	2531	2634	4.1	2125	2431	14.4	406	203	-50.0
Development Drilling	799	983	23.1	797	984	23.4	1	-1	-
Production	1935	2077	7.4	1893	1952	3.1	41	125	205.5
Non-conventional Heavy Oil & Oil Sands(1)	422	731	73.0	422	731	73.0	0	0	-
Total Upstream	5686	6424	13.0	5238	6097	16.4	449	328	-27.0
Canadian-Controlled Companies									
Land & Lease, Geological & Geophysical	590	698	18.4	585	695	18.8	5	3	-33.2
Exploration Drilling	639	720	12.7	552	666	20.7	87	54	-38.4
Total Exploration	1228	1418	15.4	1137	1361	19.7	92	57	-38.1
Development Drilling	450	535	19.0	449	535	19.2	1	0	-100.0
Production	768	931	21.2	742	868	16.8	26	64	147.0
Non-conventional Heavy Oil & Oil Sands(1)	179	453	153.4	179	453	153.4	0	0	-
Total Upstream	2625	3337	27.1	2507	3217	28.3	118	120	2.0
Foreign-Controlled Companies									
Land & Lease, Geological & Geophysical	690	708	2.7	596	649	8.7	93	60	-36.1
Exploration Drilling	613	508	-17.2	391	421	7.5	222	87	-60.8
Total Exploration	1303	1216	-6.7	988	1069	8.2	315	146	-53.5
Development Drilling	349	447	28.3	348	448	28.8	1	-1	-
Production	1166	1146	-1.7	1151	1084	-5.8	15	62	303.6
Non-conventional Heavy Oil & Oil Sands(1)	244	278	14.0	244	278	14.0	0	0	-
Total Upstream	3061	3087	0.8	2730	2879	5.5	331	207	-37.3

(1) Includes the Bi-Provincial Upgrader.

B12

Capital Expenditures by Activity in millions of dollars

	Total Industry			Canadian-Controlled			Foreign-Controlled		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Exploration	2531	2634	4.1	1228	1418	15.4	1303	1216	-6.7
Development	799	983	23.1	450	535	19.0	349	447	28.3
Production	1935	2077	7.4	768	931	21.2	1166	1148	-1.7
Oil Sands[1]	422	731	73.0	179	453	153.4	244	278	14.0
Total Upstream	5685	6424	13.0	2625	3337	27.1	3060	3087	0.9
Total Downstream	1274	1116	-12.4	532	480	-9.8	742	636	-14.2
Other Energy Related	32	20	-35.6	4	8	131.1	28	12	-56.5
Other Capital Expenditures	398	432	8.7	161	144	-10.6	237	288	21.8
Total Capital Expenditures in Canada	7388	7993	8.2	3322	3969	19.5	4066	4024	-1.1
Total Capital Expenditures Abroad	534	654	22.4	362	373	3.3	173	280	62.4
Total Company Capital Expenditures	7922	8646	9.1	3684	4343	17.9	4239	4304	1.5
	Integrateds & Refiners			Junior O&G Producers			Senior O&G Producers		
Exploration	607	539	-11.3	918	1141	24.2	1005	954	-5.1
Development	132	130	-1.1	415	488	17.6	252	365	44.6
Production	612	548	-10.5	530	642	21.1	793	888	11.9
Oil Sands[1]	228	239	4.8	58	212	266.6	137	280	104.7
Total Upstream	1578	1456	-7.8	1919	2483	29.3	2187	2486	13.7
Total Downstream	1224	1071	-12.5	7	3	-59.2	43	43	-0.8
Other Energy Related	20	9	-55.8	7	10	54.1	5	1	-72.4
Other Capital Expenditures	159	146	-7.7	33	72	119.2	206	213	3.6
Total Capital Expenditures in Canada	2981	2681	-10.1	1966	2568	30.6	2441	2744	12.4
Total Capital Expenditures Abroad	76	89	17.4	213	238	11.6	245	327	33.3
Total Company Capital Expenditures	3057	2770	-9.4	2179	2806	28.8	2687	3070	14.3

(1) Includes the Bi-Provincial Upgrader.

B13

Balance Sheet in millions of dollars

	Total Industry			Canadian-Controlled			Foreign-Controlled		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Cash, Investments & Marketable Securities	2230	2277	2.1	1159	1308	12.9	1071	969	-9.6
Accounts Receivable:									
Affiliates	494	757	53.2	124	236	90.4	370	521	40.8
All Other	6254	7369	17.8	2705	2923	8.1	3549	4446	25.3
Total	6749	8127	20.4	2829	3159	11.7	3920	4967	26.7
Inventories	4239	5603	32.2	1600	1951	21.9	2639	3652	38.4
Other Current Assets	873	767	-12.2	362	352	-2.8	512	415	-18.8
Total Current Assets	14092	16669	18.3	5950	6660	11.9	8142	10009	22.9
Property Plant & Equipment	100946	106928	5.9	45165	48980	8.4	55781	57948	3.9
Less:									
Accumulated Depletion, Depreciation and Amortization	31657	36729	16.0	14781	17182	16.2	16876	19547	15.8
Net Fixed Assets	69289	70199	1.3	30384	31798	4.7	38905	38401	-1.3
Other Long-term Assets	5416	5822	7.5	2271	2775	22.2	3145	3047	-3.1
Total Assets	88797	92690	4.4	38606	41233	6.8	50191	51457	2.5
Accounts Payable:									
Affiliates	646	1118	73.1	221	117	-47.1	425	1001	135.5
All Other	6731	7789	15.7	2848	3264	14.6	3882	4525	16.5
Total	7377	8906	20.7	3069	3381	10.2	4307	5525	28.3
Current Portion of Long-term Debt	468	596	27.5	207	335	61.5	260	261	0.5
Other Current Liabilities	3521	3891	10.5	2248	1962	-12.7	1274	1929	51.5
Total Current Liabilities	11366	13394	17.8	5524	5677	2.8	5841	7716	32.1
Long-term Debt	21432	20955	-2.2	8402	9011	7.2	13029	11944	-8.3
Prepayment for Deferred Production	1016	765	-24.6	475	423	-11.0	541	343	-36.6
Accumulated Deferred Income Taxes	11477	11566	0.8	4713	4747	0.7	6763	6819	0.8
Other Long-term Liabilities	4141	5158	24.6	931	1765	89.6	3210	3393	5.7
Shareholder's Equity:									
Common Shares	15452	15240	-1.4	9368	8956	-4.4	6083	6285	3.3
Preferred Shares	3666	3404	-7.2	2210	2107	-4.6	1457	1296	-11.0
Retained Earnings	15074	15814	4.9	3570	3954	10.8	11504	11860	3.1
Other Equity	5173	6393	23.6	3412	4592	34.6	1761	1801	2.2
Total Shareholder's Equity	39366	40851	3.8	18560	19610	5.7	20806	21242	2.1
Total Liability, Deferred Taxes & Equity	88797	92690	4.4	38606	41233	6.8	50191	51457	2.5
Working Capital	2726	3275	20.1	426	983	130.7	2300	2293	-0.3

	Integrateds & Refiners			Junior O&G Producers			Senior O&G Producers		
Cash, Investments & Marketable Securities	464	563	21.2	998	944	-5.4	769	771	0.3
Accounts Receivable:									
Affiliates	153	254	66.1	163	130	-20.3	179	374	109.4
All Other	3687	4140	12.3	890	1061	19.2	1677	2168	29.3
Total	3839	4393	14.4	1053	1191	13.1	1856	2542	37.0
Inventories	3650	4963	36.0	98	99	0.6	491	542	10.3
Other Current Assets	548	585	6.7	74	68	-8.4	251	114	-54.4
Total Current Assets	8502	10392	22.2	2223	2301	3.5	3367	3975	18.1
Property Plant & Equipment	42519	43630	2.6	22898	26120	14.1	35529	37178	4.6
Less:									
Accumulated Depletion, Depreciation and Amortization	13474	15025	11.5	7661	9434	23.1	10522	12270	16.6
Net Fixed Assets	29045	28605	-1.5	15237	16686	9.5	25007	24907	-0.4
Other Long-term Assets	2791	2794	0.1	730	547	-25.1	1895	2481	30.9
Total Assets	40337	41792	3.6	18190	19534	7.4	30269	31363	3.6
Accounts Payable:									
Affiliates	495	954	92.5	43	41	-4.6	107	123	14.3
All Other	4102	4459	8.7	941	1152	22.4	1688	2177	29.0
Total	4597	5413	17.8	984	1193	21.2	1795	2300	28.1
Current Portion of Long-term Debt	106	69	-35.4	182	315	73.0	179	212	18.6
Other Current Liabilities	2029	2500	23.2	307	232	-24.6	1186	1160	-2.2
Total Current Liabilities	6732	7982	18.6	1473	1740	18.1	3160	3672	16.2
Long-term Debt	8638	7811	-9.6	4217	4079	-3.3	8576	9065	5.7
Prepayment for Deferred Production	184	95	-48.3	310	287	-7.6	521	383	-26.4
Accumulated Deferred Income Taxes	5827	5515	-5.4	1584	1727	9.0	4066	4325	6.4
Other Long-term Liabilities	1161	2079	79.0	1270	1333	4.9	1710	1747	2.2
Shareholder's Equity:									
Common Shares	6495	5329	-18.0	5246	6176	17.7	3711	3736	0.7
Preferred Shares	208	17	-92.0	1973	1789	-9.4	1485	1598	7.6
Retained Earnings	9129	9912	8.6	735	979	33.1	5210	4924	-5.5
Other Equity	1962	3053	55.6	1381	1426	3.3	1830	1913	4.5
Total Shareholder's Equity	17795	18310	2.9	9335	10370	11.1	12236	12171	-0.5
Total Liability, Deferred Taxes & Equity	40337	41792	3.6	18190	19534	7.4	30269	31363	3.6
Working Capital	1770	2410	36.2	750	581	-25.1	207	303	46.8

B14

Capital Employed by Sector and Segment[1] in millions of dollars

	Total Industry			Canadian-Controlled			Foreign-Controlled		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Upstream	55211	54358	-1.5	24258	24376	0.5	30953	29982	-3.1
Refining and Marketing	13904	14266	2.6	5195	5233	0.7	8708	9033	3.7
Other Downstream	3177	3620	13.9	1503	1858	23.6	1674	1762	5.3
Other Canadian Operations	3155	2855	-9.5	1414	1522	7.6	1741	1333	-23.4
Total Canadian Operations	75447	75098	-0.5	32371	32989	1.9	43076	42110	-2.2
Foreign Operations	3440	4198	22.0	2104	2567	22.0	1336	1631	22.0
Grand Total	78887	79296	0.5	34474	35555	3.1	44412	43741	-1.5

	Integrateds/Refiners			Junior O&G Producers			Senior O&G Producers		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Upstream	16809	15926	-5.3	15563	15414	-1.0	22839	23017	0.8
Refining and Marketing	13902	14259	2.6	0	6	–	1	0	-100.0
Other Downstream	2338	2815	20.4	91	84	-8.0	748	721	-3.6
Other Canadian Operations	1125	609	-45.9	521	679	30.4	1509	1567	3.8
Total Canadian Operations	34174	33610	-1.7	16175	16183	0.1	25097	25305	0.8
Foreign Operations	181	200	10.8	1222	1611	31.8	2037	2386	17.1
Grand Total	34355	33810	-1.6	17397	17794	2.3	27134	27691	2.1

(1) Capital employed is defined as total assets less current liabilities.

B15
Volume and Value of Production

By Province

Volume in thousands of cubic metres	Alberta 1989	Alberta 1990	Alberta Change %	British Columbia 1989	British Columbia 1990	British Columbia Change %	Saskatchewan 1989	Saskatchewan 1990	Saskatchewan Change %
Conventional Crude Oil	52708.0	49810.4	-5.5	1891.8	1985.8	5.0	9306.5	9888.2	6.3
Oil Sands	18527.6	18948.2	2.3	0.0	0.0	-	0.0	0.0	-
Marketable Natural Gas (10^6m^3)	74134.1	75851.5	2.3	9819.5	10449.2	6.4	4855.7	5526.1	13.8
Gas Plant Liquids - Fields	11993.1	10643.5	-11.3	187.7	206.0	9.8	85.2	140.1	64.4
Gas Plant Liquids - Reprocessing	3868.0	5928.3	53.3	133.0	164.0	23.3	0.0	0.0	0.0
Total - Oil equivalent(1)	153546.2	151710.6	-1.2	30069.2	31224.1	3.8	32591.3	34282.5	5.2
Value in millions of dollars			%			%			%
Conventional Crude Oil	6657.9	7701.4	15.7	246.3	301.6	22.4	990.8	1239.1	25.1
Oil Sands	2084.5	2685.7	28.8	0.0	0.0	-	0.0	0.0	-
Marketable Natural Gas	4049.3	4186.1	3.4	478.8	519.0	8.4	239.4	299.4	25.0
Gas Plant Liquids - Fields	963.6	1106.4	14.8	12.5	19.7	57.8	4.3	10.2	136.7
Gas Plant Liquids - Reprocessing	276.0	518.4	87.9	9.5	18.1	90.6	0.0	0.0	-
Total(1)	14088.2	15984.5	13.5	761.6	842.5	10.6	1234.5	1548.6	25.4

By Company Group

Volume in thousands of cubic metres	Total Industry 1989	Total Industry 1990	Total Industry Change %	Canadian-Controlled 1989	Canadian-Controlled 1990	Canadian-Controlled Change %	Foreign-Controlled 1989	Foreign-Controlled 1990	Foreign-Controlled Change %
Conventional Crude Oil	66462.2	64100.7	-3.6	24953.4	26026.5	4.3	41508.8	38074.2	-8.3
Oil Sands	18527.6	18948.2	2.3	5842.0	6071.0	3.9	12685.6	12877.2	1.5
Marketable Natural Gas (10^6m^3)	89035.1	92081.1	3.4	40302.1	41892.6	3.9	48733.0	50188.4	3.0
Gas Plant Liquids - Fields	12265.1	10998.6	-10.3	4239.2	3268.7	-22.9	8025.9	7729.9	-3.7
Gas Plant Liquids - Reprocessing	4001.0	6092.3	52.3	2888.0	3945.7	36.6	1113.0	2146.6	92.9
Total - Oil equivalent(1)	181925.1	181989.2	-	73183.8	75391.3	3.0	108741.3	106597.9	-2.0
Value in millions of dollars			%			%			%
Conventional Crude Oil	8153.0	9602.0	17.8	3017.5	3816.8	26.5	5135.6	5785.2	12.6
Oil Sands	2084.5	2685.7	28.8	765.4	1010.7	32.1	1319.1	1675.0	27.0
Marketable Natural Gas	4786.9	5023.5	4.9	2118.9	2283.9	7.8	2668.0	2739.7	2.7
Gas Plant Liquids - Fields	981.3	1137.3	15.9	303.5	338.3	11.5	677.8	799.1	17.9
Gas Plant Liquids - Reprocessing	285.5	536.6	88.0	202.7	341.9	68.6	82.7	194.7	135.3
Total(1)	16362.3	18755.6	14.6	6280.9	7513.8	19.6	10081.4	11241.8	11.5

Volume in thousands of cubic metres	Integrateds/Refiners 1989	Integrateds/Refiners 1990	Integrateds/Refiners Change %	Junior O&G Producers 1989	Junior O&G Producers 1990	Junior O&G Producers Change %	Senior O&G Producers 1989	Senior O&G Producers 1990	Senior O&G Producers Change %
Conventional Crude Oil	21373.8	18998.7	-11.1	14991.0	16810.5	12.1	30097.4	28291.5	-6.0
Oil Sands	12391.8	12400.7	0.1	178.3	326.0	82.8	5957.5	6221.5	4.4
Marketable Natural Gas (10^6m^3)	21995.7	21723.1	-1.2	28897.3	31882.6	10.3	38142.1	38475.3	0.9
Gas Plant Liquids - Fields	3835.5	4118.3	7.4	1994.6	1831.6	-8.2	6435.0	5048.7	-21.5
Gas Plant Liquids - Reprocessing	2423.0	2776.0	14.6	0.0	233.3	-	1578.0	3083.0	95.4
Total - Oil equivalent(1)	58681.7	56234.4	-4.2	44634.2	49405.5	10.7	78609.1	76349.3	-2.9
Value in millions of dollars			%			%			%
Conventional Crude Oil	2650.0	2923.6	10.3	1767.0	2413.6	36.6	3736.1	4264.7	14.1
Oil Sands	1335.9	1666.9	24.8	17.5	44.4	153.6	731.1	974.4	33.3
Marketable Natural Gas	1188.5	1181.6	-0.6	1497.9	1714.7	14.5	2100.5	2127.2	1.3
Gas Plant Liquids - Fields	322.7	433.3	34.3	120.0	165.7	38.1	538.6	538.3	-0.1
Gas Plant Liquids - Reprocessing	169.8	224.9	32.5	0.0	18.1	-	115.7	293.6	153.8
Total(1)	5666.2	6354.9	12.2	3420.2	4351.7	27.2	7275.9	8049.0	10.6

(1) Includes sulphur but excludes NGL production from reprocessing plants.

B16

Upstream Operating Costs and Royalties in millions of dollars

By Province

	Alberta			British Columbia			Saskatchewan		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Field, Well & Gathering Operations	2299.4	2341.9	1.9	137.5	163.8	19.1	307.1	336.1	9.5
Natural Gas Processing Plants	492.1	570.2	15.9	23.8	23.3	-2.2	14.1	14.0	-0.6
Oil Sands[1]	1387.3	1436.8	3.6	0.0	0.0	-	0.0	0.0	-
Taxes (excluding Income Taxes)	126.0	99.1	-21.4	2.5	2.7	7.6	18.9	17.1	-9.5
Operating Overhead	1312.7	1286.3	-2.0	40.5	44.8	10.8	102.7	122.2	18.9
Total Operating Cost	5617.5	5734.3	2.1	204.3	234.6	14.8	442.7	489.4	10.5
Federal Crown Royalties	0.5	1.0	93.9	0.0	0.0	-	0.3	1.0	220.9
Provincial Royalties & Taxes	2003.7	2329.5	16.3	99.3	113.9	14.7	174.2	233.4	34.0
Non-Crown Royalties & Other	357.6	397.0	11.0	17.8	21.1	18.3	54.2	70.8	30.5
Total Royalties	2361.8	2727.5	15.5	117.1	135.0	15.2	228.8	305.2	33.4

By Company Group	Total Industry			Canadian-Controlled			Foreign-Controlled		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Field, Well & Gathering Operations	2812.0	2918.7	3.8	1131.5	1222.6	8.0	1680.4	1696.1	0.9
Natural Gas Processing Plants	553.2	634.5	14.7	266.3	308.8	16.0	287.0	325.8	13.5
Oil Sands[1]	1387.3	1436.8	3.6	580.2	632.8	9.1	807.1	804.0	-0.4
Taxes (excluding Income Taxes)	150.8	122.4	-18.8	44.9	35.8	-20.4	105.9	86.7	-18.1
Operating Overhead	1490.7	1485.6	-0.3	536.3	556.8	3.8	954.4	928.8	-2.7
Total Operating Cost	6394.0	6598.1	3.2	2559.2	2756.7	7.7	3834.8	3841.4	0.2
Federal Crown Royalties	7.0	23.1	229.9	0.6	1.7	197.6	6.4	21.4	232.9
Provincial Royalties & Taxes	2285.6	2687.4	17.6	786.8	977.4	24.2	1498.8	1709.9	14.1
Non-Crown Royalties & Other	440.2	501.3	13.9	203.7	250.1	22.8	236.5	251.2	6.2
Total Royalties	2732.8	3211.8	17.5	991.1	1229.2	24.0	1741.7	1982.6	13.8

	Integrateds/Refiners			Junior O&G Producers			Senior O&G Producers		
	1989	1990	Change %	1989	1990	Change %	1989	1990	Change %
Field, Well & Gathering Operations	817.0	812.0	-0.6	764.0	845.9	10.7	1231.0	1260.9	2.4
Natural Gas Processing Plants	232.2	238.4	2.7	84.5	98.0	16.0	236.5	298.1	26.0
Oil Sands[1]	827.9	829.2	0.2	5.7	5.5	-2.5	553.8	602.1	8.7
Taxes (excluding Income Taxes)	37.6	34.5	-8.3	20.8	25.5	22.7	92.4	62.5	-32.4
Operating Overhead	476.8	525.4	10.2	291.7	322.4	10.5	722.2	637.8	-11.7
Total Operating Cost	2391.4	2439.4	2.0	1166.7	1297.4	11.2	2835.9	2861.3	0.9
Federal Crown Royalties	5.8	20.7	256.9	0.3	1.1	228.8	0.9	1.3	51.7
Provincial Royalties & Taxes	706.1	799.1	13.2	469.7	624.3	32.9	1109.8	1263.9	13.9
Non-Crown Royalties & Other	143.3	137.6	-4.0	166.7	203.0	21.7	130.2	160.7	23.5
Total Royalties	855.2	957.4	12.0	636.8	828.4	30.1	1240.8	1425.9	14.9

(1) Includes overburden removal costs for mining operations.

B17
Income and Expense Statement: 1981 – 1990 in millions of dollars

	1981	1982	1983	1984	Upstream 1985	1986	1987	1988	1989	1990
Total Revenues	17238	20978	23883	26576	27840	16896	17846	15712	17509	20564
Royalties and other Payments	4972	5610	6093	6458	6326	3130	3048	2528	2733	3212
PGRT and other Taxes	969	1946	2027	2237	1998	451	0	0	0	0
Total Revenues after Royalties and Taxes	11297	13422	15762	17882	19516	13316	14798	13183	14776	17352
Interest Expenses	–(1)	1567	1434	1655	1570	1691	1633	1403	1306	1254
Operating Costs	4622	3979	4198	4683	5226	5184	5043	5762	6371	6701
R&D Costs (excluding Oil Sands)	–(1)	72	51	64	88	71	62	81	65	64
Other Expenses	–(1)	126	132	128	167	153	123	123	121	118
Oil Sands R&D	–(2)	57	35	27	36	38	27	37	42	47
E&D Expensed	1468	982	824	1085	1033	1128	966	1356	1097	1155
Depreciation	501	546	689	726	834	875	909	1062	1172	1075
Depletion	535	816	1083	1412	1718	2227	1874	2125	2301	2492
Write-offs and Amortization	290	418	1045	605	526	1067	874	543	653	1004
Non-cash Charges and E&D	2794	2818	3877	3856	4147	5335	4549	5122	5266	5773
Income before Taxes	3881	4860	6281	7495	8338	681	3387	692	1647	3442
Federal Income Tax(3)	1229	1687	2242	2303	2482	757	970	191	408	903
Provincial Income Taxes	198	201	389	607	547	19	151	–160	–40	228
Current Income Taxes	1427	1888	2631	2910	3029	776	1122	31	368	1131
Income after Current Income Taxes	2454	2972	3650	4585	5309	105	2266	662	1279	2311
Deferred Income Tax	802	1018	1205	1713	1705	35	372	101	443	519
Net Income after Taxes	1652	1954	2444	2872	3604	70	1894	560	836	1792
Extraordinary Gains or Losses	0	100	75	6	–334	–1969	113	229	–177	–34
Net Income after Extraordinary Items	1652	2054	2519	2878	3270	–1899	2006	790	659	1758
Internal Cash Flow	5248	5790	7325	8441	9456	5440	6815	5784	6544	8083

	1981	1982	1983	1984	Downstream 1985	1986	1987	1988	1989	1990
Total Revenues	30507	31263	30660	31245	33376	26172	27019	26982	29031	33436
Sales, Excise and other Taxes	1810	1811	1777	1935	2314	2972	3963	4251	4861	5431
Total Revenues after Taxes	28697	29452	28883	29310	31062	23200	23056	22731	24170	28007
Cost of Goods Sold	–(1)	25115	25351	24930	26276	17672	17291	15653	17149	20379
Interest Expenses	–(1)	260	298	361	201	119	94	76	303	339
Operating Costs	25836	2824	2677	2854	3252	3109	3319	3771	4121	4644
R&D Costs	–(1)	68	62	68	80	70	69	86	98	99
Other Expenses	–(1)	159	189	35	43	54	10	7	–2	–3
Depreciation	443	446	572	612	686	698	709	761	807	978
Write-offs and Amortization	15	26	61	30	170	–75	17	21	30	18
Non-cash Charges	458	473	634	642	856	623	726	782	838	996
Income before Taxes	2403	553	–328	420	353	1473	1548	2356	1663	1553
Federal Income Tax(3)	607	–175	–346	–17	107	346	431	578	426	467
Provincial Income Taxes	203	–71	–118	–3	19	73	119	212	167	177
Current Income Taxes	812	–246	–464	–20	126	420	551	791	593	645
Income after Current Income Taxes	1591	799	137	441	227	1053	997	1566	1070	908
Deferred Income Tax	241	424	213	86	–116	–4	108	136	77	–20
Net Income after Taxes	1350	376	–77	355	344	1057	889	1430	993	928
Extraordinary Gains or Losses	0	44	–9	35	–129	–213	18	49	–69	2
Net Income after Extraordinary Items	1350	420	–86	389	215	844	907	1479	925	930
Internal Cash Flow	2049	1273	770	1082	1063	1676	1723	2347	1908	1903

(1) Included in Operating Costs.
(2) Included in E&D Expensed.
(3) Includes Large Corporations Tax.

B17(continued)
Income and Expense Statement: 1981 – 1990 in millions of dollars

	Other Canadian and Foreign Operations									
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Total Revenues	5116	4856	4590	4755	4877	4331	4112	4103	4184	4385
PGRT, Royalties and other Taxes	123	204	75	100	169	109	111	76	112	167
Total Revenues after Taxes	4993	4652	4515	4655	4709	4222	4001	4027	4053	4218
Cost of Goods Sold	-(1)	1265	1679	1243	1360	1379	1612	1233	1574	2062
Interest Expenses	-(1)	874	778	784	689	915	535	564	930	872
Operating Costs	4139	1643	1309	1296	1514	1144	984	1236	1250	1504
R&D Costs (excluding Oil Sands)	-(1)	5	10	10	7	11	3	2	10	8
Other Expenses	-(1)	636	179	182	181	176	135	133	41	46
E&D Expensed	194	92	60	55	68	30	44	203	148	139
Depreciation	239	319	319	373	280	310	262	267	191	354
Depletion	180	224	252	298	469	662	326	401	258	296
Write-offs and Amortization	-41	456	832	230	203	256	-65	-74	162	-332
Non-cash Charges and E&D	572	1092	1462	955	1019	1259	548	798	770	447
Income before Taxes	282	-861	-903	196	-63	-663	185	61	-522	-720
Federal Income Tax(3)	-54	-6	54	8	16	-172	-52	48	-156	-85
Provincial Income Taxes	3	-8	-15	-49	-26	-32	-45	-1	-129	-111
Current Income Taxes	-51	-14	39	-40	-9	-204	-97	47	-285	-196
Income after Current Income Taxes	333	-848	-942	236	-54	-458	282	14	-238	-524
Deferred Income Tax	125	-151	-31	130	70	-5	8	4	-17	-248
Net Income after Taxes	208	-697	-911	106	-124	-453	275	9	-221	-276
Extraordinary Gains or Losses	0	8	0	92	-134	-1302	16	-109	-28	9
Net Income after Extraordinary Items	208	-689	-911	197	-258	-1754	291	-100	-250	-267
Internal Cash Flow	905	244	520	1191	966	801	829	811	532	-77

	Total Operations									
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Total Revenues	52861	57097	59132	62576	66092	47398	48977	46796	50704	58388
Royalties and other Payments	4972	5610	6093	6458	6326	3130	3048	2528	2733	3212
PGRT and other Taxes	2902	3961	3879	4271	4460	3531	4074	4327	4973	5599
Total Revenues after Royalties and Taxes	44988	47526	49160	51847	55286	40737	41855	39941	42998	49577
Cost of Goods Sold	-(1)	26380	27031	26173	27636	19051	18903	16886	18723	22441
Interest Expenses	-(1)	2701	2510	2800	2460	2724	2262	2044	2539	2465
Operating Costs	34597	8446	8174	8823	9992	9517	9346	10769	11743	12849
R&D Costs (excluding Oil Sands)	-(1)	144	122	142	156	153	135	169	173	172
Other Expenses	-(1)	920	500	344	391	383	267	264	160	161
Oil Sands R&D	-(2)	57	35	27	36	38	27	37	42	47
E&D Expensed	1662	1074	884	1140	1101	1159	910	1559	1245	1294
Depreciation	1163	1312	1579	1711	1799	1883	1881	2090	2171	2407
Depletion	715	1041	1335	1710	2187	2989	2200	2526	2569	2778
Write-offs and Amortization	264	900	1939	865	899	1248	905	489	846	689
Non-cash Charges and E&D	3824	4383	5773	5452	6022	7217	5823	6701	6874	7215
Income before Taxes	6567	4553	5050	8111	8628	1692	5120	3109	2787	4275
Federal Income Tax(3)	1782	1506	1950	2282	2605	931	1350	817	679	1285
Provincial Income Taxes	404	122	256	556	540	60	226	51	-2	295
Current Income Taxes	2186	1628	2206	2838	3146	991	1575	868	676	1580
Income after Current Income Taxes	4381	2925	2844	5273	5482	700	3545	2241	2111	2695
Deferred Income Tax	1168	1291	1387	1940	1859	26	486	242	503	251
Net Income after Taxes	3213	1633	1456	3333	3623	674	3058	1999	1608	2444
Extraordinary Gains or Losses	0	148	66	132	-598	-3484	146	170	-274	-24
Net Income after Extraordinary Items	3213	1782	1522	3465	3227	-2810	3204	2169	1333	2420
Internal Cash Flow	8205	7307	8615	10725	11504	7917	9367	8942	8984	9909

(1) Included in Operating Costs.
(2) Included in E&D Expensed.
(3) Includes Large Corporations Tax.

B18
Sources and Uses of Funds: 1981 – 1990 in millions of dollars

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Cash Generated by Operations	8205	7307	8615	10725	11504	7917	9367	8942	8984	9909
Net Increase in Long-term Debt	9655	3532	1814	4184	1887	1874	806	2284	5344	2002
Issue of Shares	2035	3218	2130	1814	2006	2385	1790	2356	3036	1372
Incentive, Grants and others	816	1468	1658	1885	1854	1122	507	423	222	95
All other Sources	2083	3150	2998	5052	4134	4817	7630	4480	3909	4548
Working Capital Decrease	1095	4380	1527	906	2795	3333	2009	4801	1590	1228
Total Sources of Funds	23889	23055	18742	24565	24181	21448	22198	23286	23085	19754
Upstream Capital Expenditures	6821	6449	6777	7934	9243	6235	5527	6777	5692	6424
Downstream Capital Expenditures	1646	2180	1611	897	751	725	1126	1189	1177	1037
Other Canadian Capital Expenditures	1683	1914	1157	827	779	368	403	515	526	532
Total Capital Expenditures in Canada	10149	10542	9545	9658	10773	7328	7057	8480	7395	7993
Capital Expenditures in U.S.A.	1064	589	327	315	716	145	150	144	130	153
Other Foreign Capital Expenditures	735	983	442	360	472	425	345	488	404	501
Total Foreign Capital Expenditures	1799	1152	769	675	1190	570	495	611	534	654
Total Company Capital Expenditures	11948	11694	10314	10333	11963	7898	7552	9092	7929	8646
Dividends:										
Common Shares	n/a	n/a	n/a	n/a	1507	2253	1158	2056	1087	1382
Preferred Shares	n/a	n/a	n/a	n/a	268	296	329	408	276	284
Total	1165	1115	1234	1334	1775	2549	1487	2464	1363	1666
Reduction of Equity	362	632	569	166	526	452	456	1408	831	692
Total Dividends and Reduction of Equity	1526	1747	1802	1500	2302	3001	1943	3872	2194	2358
Net Decrease in Long-term Debt	532	3581	1545	2576	1884	2931	4533	2681	1999	3126
All other Applications	7075	4772	3114	5652	5819	6783	6129	6146	9427	3835
Working Capital Increase	2307	1281	1968	4504	2212	836	2041	1496	1536	1789
Total Applications of Funds	23889	23055	18742	24565	24181	21448	22198	23286	23085	19754

Appendix C Glossary of Terms

Acquisitions – the acquisition of shares or the purchase of assets of other petroleum companies. Capital outlays for these purposes are included under the category 'All Other Uses of Funds' in Monitoring Reports. *(Acquisitions)*

All Other Sources of Funds – proceeds from the sale of assets or long–term investments and pre–payments received for future production and the reclassification of sizeable short–term debt to long–term such as occurred in 1984. *(Autres sources de fonds)*

All Other Uses of Funds – includes acquisitions, purchases of used machinery and equipment, and long–term investments. *(Autres affectations de fonds)*

Amortization – the depreciation, depletion or charge–off to expense of tangible and intangible assets over a period of time. It includes costs associated with mineral properties prior to the time they are developed and entered into production. *(Amortissement)*

Canada Lands – physical areas of Canada outside provincial boundaries. *(Terres du Canada)*

Canadian Control – in general, a company is Canadian–controlled when 50% or more of its voting shares are held by Canadian residents either directly or indirectly. In a few exceptional cases, when a significant block of shares is held by Canadian residents and the remaining shares are widely held, a company may be effectively Canadian–controlled even though more than 50% of the voting shares are held by non–residents. *(Contrôle canadien)*

Canadian Exploration and Development Incentive Program (CEDIP) – provided direct assistance to companies conducting exploration and development activities in Canada. Beginning April 1, 1987, CEDIP provided a cash payment for 33 1/3 % of exploration and development expenses anywhere in Canada, up to a maximum of $10 million annually per company. Fiscal measures proposed under the Income Tax Reform of June 1987, provided for the phasing out of the program over approximately the same period as earned depletion. The CEDIP rate was fixed at 25% effective October 1, 1988, and the 16 2/3% rate was rescheduled to take effect July 1, 1989. The program was to be terminated on December 31, 1989, but was terminated instead on April 27, 1989, subject to specific grandfathering rules. *(Le programme canadien d'encouragement à l'exploration et à la mise en valeur)*

Canadian Exploration Incentive Program (CEIP) – provided up to $3 million in incentives per corporation for each calendar year, based on 30% of eligible expenses to a ceiling of $10 million a year. The $10 million limit was for both the CEIP and CEDIP programs. The CEIP program began for oil and gas exploration on October 1, 1988 when the incentive rate for the CEDIP program fell to 25%. CEIP incentives were limited to exploration expenses incurred under flow–through agreements, where the corporation and the investor were at arms' length. The federal budget of February 20, 1989 announced the early termination of the program, subject to grandfathering provisions. *(Le programme du stimulation de l'exploration du Canada)*

Canadian Ownership – the proportion of the total voting shares of a company held, either directly or indirectly (through other corporations), by Canadian residents. *(Participation canadienne)*

Capital Employed – the net book value of total assets, less current liabilities. *(Capital utilisé)*

Capital Expenditures – investments in new machinery, equipment, structures and resource properties, whether capitalized or charged directly to current operations, as well as for intangible assets (e.g. cost of leased equipment), capitalized interest and capitalized repair expenditures. *(Dépenses de capital)*

Conventional Oil – crude oil recoverable from a well using standard production methods. *(Pétrole classique)*

Current Income Tax – the portion of the provision for income taxes, both federal and provincial, pertaining to the reporting period and assumed to be currently due. *(Impôts courants)*

Debt/Equity Ratio – the ratio of long–term liabilities (over one year) to shareholders' equity (share capital plus retained earnings) at the end of a period. Depending upon their terms and conditions, preferred shares may be classified as either debt or equity (see 'long–term debt'). *(Rapport d'endettement)*

Deferred Income Taxes – taxes accrued and reflected as an expense in the income statement, but not payable in the financial reporting period. Income taxes are deferred, for example, when companies write off capital assets (using capital cost allowances) for income tax purposes at rates that exceed those employed in preparing their financial reports. *(Impôts reportés)*

Depletion – the amount charged to expense in the company's financial statements which relates to depletable assets that have been capitalized. This is not the earned depletion allowance calculated for income tax purposes. *(Epuisement)*

Depreciation – the amount charged to expense which relates to depreciable assets that have been capitalized. This is not the amount of capital cost allowance that is used to compute depreciation for income tax purposes. *(Dépréciation)*

Development Expenditures – includes drilling and well completion costs in an area of already proven oil or natural gas reserves, expenditures on field gathering and separation systems, and the cost of acquiring proven reserves. *(Dépenses de mise en valeur)*

Downstream Segment – includes refining and marketing, transportation and petrochemical operations. *(Secteur aval)*

Energy Mining – uranium and coal mining (excludes oil sands mining). *(Extraction minière des ressources énergétiques)*

Equity – the book value of shareholders' paid–up capital, contributed surplus and retained earnings. *(Avoir propre)*

Exploration Costs – includes all lease fees and land acquisition costs, geological and geophysical expenditures, and exploratory drilling costs whether capitalized or expensed. Exploratory drilling is generally defined as the drilling of a well outside a proven area, or within a proven area but to a previously untested zone, in order to determine whether oil or gas reserves exist. Also included are costs of dry wells, casing and other materials and equipment abandoned in place. *(Frais d'exploration)*

External Sources of Funds – funds obtained from sources other than internal cash flow. Long–term debt and equity are the main examples. *(Sources externes de fonds)*

Extraordinary Item – income and expenses items resulting from highly unusual transactions and are of a type that would not reasonably be expected to recur. *(Poste extraordinaire)*

Flow–through Shares – a financial vehicle that allows a resource company to issue shares and thereby raise funds for exploration and development expenditures. In turn, the company renounces the associated tax expenses such as Canadian exploration expenses (CEE), Canadian development expenses (CDE) and Canadian oil and gas property expenses (COGPE) to the purchasers of the flow–through shares. Flow–through arrangements permit investors to deduct resource expenses incurred by the issuing corporation against income from other sources. *(Action accréditive)*

Full Cost Accounting – an accounting method by which all costs incurred in prospecting for reserves and in acquiring, exploring and developing properties within cost centres are initially capitalized and only charged to expense as the reserves deemed to be related to those costs are produced. Costs incurred include prospecting, leasing, acquisition, retention, exploration and development costs, and associated indirect costs (i.e. general and administrative costs). Operating costs are expensed as incurred. *(Méthode de capitalisation du coût entier)*

Heavy Crude Oil – oil with high viscosity, recoverable only to a very limited extent by using standard production methods. *(Pétrole lourd)*

In–situ Recovery – refers to recovery methods applicable in heavy oil and oil sands formations without removing conglomerates from the location. *(Récupération "in–situ")*

Integrated Companies – individual companies that have significant revenues in both the upstream and downstream segments. *(Sociétés intégrées)*

Internal Cash Flow – net income after tax plus exploration and development expenditures expensed in the current period, depreciation, depletion, amortization and deferred income taxes. *(Ressources d'autofinancement)*

Junior Producers – companies that are predominantly exploration and production oriented and that individually generate less than 1% of industry upstream revenues. *(Petits producteurs)*

Large Corporations Tax – a tax introduced in the April 27, 1989 federal budget which is levied at a rate of 0.175% on capital in excess of $10 million employed in Canada by corporations. The LCT is not deductible in computing income for tax purposes, but is creditable against the corporate 3% surtax. *(Impôt sur les grandes sociétés)*

Long–term Debt – debt that has a maturity date greater than one year. Preferred shares may be treated as long–term debt when they are redeemable for a fixed amount without conversion privileges or voting rights. *(Dette à long terme)*

Non–cash Charges – items expensed in the reporting period that do not require an actual financial outlay in that period, such as depreciation, depletion and amortization. *(Frais non monétaires)*

Oil Equivalent Conversion – conversion of volumes of natural gas, liquefied petroleum gas and pentanes plus into equivalent volumes of crude oil, based on the relative heating content of these hydrocarbons. *(Conversion en pétrole brut et équivalents)*

Oil Sands – deposits of sands and clay (excluding oil shale) heavily impregnated with semi–solid or solid bitumen called also tar sands. Athabasca, Peace River, Wabasca, Cold Lake and Buffalo Head Hills are the main Canadian resource areas. *(Sables pétrolifères)*

'Other Canadian' Operations – include drilling services, coal and uranium mining, metal mining, and other non–petroleum related activities. In addition, corporate activities may be included here. *(Autres activités au Canada)*

Production Expenditures – all expenditures relating to the production of crude oil and natural gas. Expenditures on natural gas processing plants are included. *(Dépenses de production)*

Senior Producers – companies that are predominantly exploration and production oriented and that individually generate more than 1% of industry upstream revenues. *(Grands producteurs)*

Successful Efforts Accounting – an accounting method by which only costs resulting directly in identifiable future benefits through discovery, acquisition or development of reserves are capitalized. Costs that do not provide identifiable future benefits are expensed as incurred, or are written off when the properties are determined to be non–productive. Such costs include those relating to geological and geophysical studies, retention of undeveloped properties, and non–productive exploration and development efforts. *(Méthode de capitalisation du coût de la recherche fructueuse)*

Upstream Segment – activities and operations related to the search for, and development, production, extraction and recovery of crude oil, natural gas, natural gas liquids and sulphur, as well as the production of synthetic oil. *(Secteur amont)*

Working Capital – current assets (cash, short–term investments, accounts receivable, inventories) less current liabilities (accounts payable, debts and obligations maturing in less than one year). *(Fonds de roulement)*

Appendix D PMA Terms of Reference

Mandate of the Petroleum Monitoring Agency

The Petroleum Monitoring Agency (PMA) was established initially in 1980 under the Inquiries Act and continues under the Energy Monitoring Act (EMA)[1] after February 1983. The Agency's goals are to provide the federal government and Canadians generally with comprehensive and objective information on and analysis of the financial performance of the petroleum industry in Canada: The purpose of these goals is:

(a) to enable the Government of Canada to better plan and develop policies for the management of Canada's energy supplies and resources, and

(b) to provide the Government of Canada and Canadians generally with assurances that those policies are being pursued and are effective.[2]

These goals are accomplished by publishing semi-annual and annual reports based on information received directly from all but the smallest oil and gas companies doing business in Canada.

To provide impartiality of reporting and maintain credibility among users, the PMA was created as a separate and independent agency, with its Chairman reporting directly to the Minister of Energy, Mines and Resources.

The Act, at subsection 5(1), sets out that energy enterprises shall file, twice a year, returns providing data and information relating to:

(a) ownership and control,
(b) sources and application of funds,
(c) exploration, development, production, processing, refining and marketing,
(d) costs and revenues,
(e) deductions, credits, allowances and carry forwards provided under the Income Tax Act,
(f) the distribution and disposition of its revenues and profits,
(g) resources, reserves and properties,
(h) ownership or interest in any other enterprise,
(i) research and development programs, and
(j) other prescribed matters relating to oil and gas production, refining and marketing, and the funds derived from such activities.

Energy enterprises are defined as individuals, corporations, partnerships, trusts or organizations engaged in the exploration for, development, refining and marketing of oil and gas and having consolidated gross annual revenues or assets in excess of ten million dollars. Regulations prescribe that gross revenues and assets be determined according to accounting standards set out in the Canadian Institute of Chartered Accountants Handbook. Currently only corporations are surveyed by the Agency. Each energy corporation is required to report on a consolidated basis on the activities of corporations it controls or owns.

Sources of Data and Information

The data published in The Canadian Petroleum Industry *Monitoring Report* are aggregate data derived mainly from survey schedules prescribed by regulations.[3] Since part of the Agency's information gathering function falls within areas covered by Statistics Canada, a number of data sharing agreements were negotiated between PMA and Statistics Canada under section 12 of the Statistics Act. These agreements reduce the industry's response burden in relation to the Agency's overall information requirements. Information also flows from PMA to Statistics Canada. Current data sharing agreements relate to:

- ownership and control of energy enterprises,
- capital structure,
- international flows of funds,
- research and development expenditures,
- exploration, development and capital expenditure intentions,
- quarterly corporate financial statistics,
- employment and compensation, and
- capital expenditures and operating costs.

The first seven of these involve transmission of information to the PMA; the last includes information on such subjects as exploration, development and production expenditures, and royalties from the PMA to Statistics Canada.

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(1) S.C. 1980-81-82-83, c. 112.
(2) P.C. 1980-2137.
(3) Currently prescribed schedules are contained in Regulation SOR/90-254

Data Coverage

Industry gross revenues covered by the PMA through aggregation of returns from 141 reporting enterprises account for 90% of upstream industry revenues as determined by Statistics Canada. The remaining 10% of industry revenues accrues to firms having revenues or assets below the Agency's current reporting thresholds. The high degree of coverage of industry revenues and the inclusion of all but the smallest energy enterprises enable conclusions drawn from Agency aggregates to be applied to the industry as a whole. Degrees of coverage of other performance indicators are presented below.

Comparison of PMA Data with 1990 Industry Aggregates
Percentage of industry aggregates covered

Upstream Production Revenues	90
Upstream Expenditures in Canada	91
Production Volumes:	
Crude Oil and Liquids	88
Marketable Natural Gas	93
Refined Product Sales Volumes	96

Comparison of Survey Results – PMA vs. Statistics Canada

The petroleum industry's financial performance is regularly compared to that of other sectors of the economy using aggregate data from Statistics Canada. Net income and rates of return information provided in Chapters 1 and 2 of this report will differ slightly from the results shown in Chapter 3 because the latter is based on Statistics Canada data.

Petroleum industry data from Statistics Canada, while covering a greater number of companies than the PMA survey, exclude government business enterprises as well as the foreign activities of Canadian petroleum companies. The PMA survey covers the global activities of petroleum companies operating in Canada, including Crown corporations, provided these companies meet the minimum requirements in terms of assets and revenues. In addition, though Statistics Canada may make adjustments to company reported data, the PMA reports only on the industry's activities as they are submitted. For example, in 1983, a write–down by one large Canadian–controlled company of assets of $1 billion was treated as 'extraordinary' by Statistics Canada, whereas the Agency accepted the entry as 'ordinary', as reported by the company.

Regarding rates of return, both agencies determine return on capital employed by adding back to net income the after–tax portion of interest on long–term debt. While the PMA produces this calculation for each company individually, using the statutory tax rate on that portion of interest expense which would increase net income, the add back on Statistics Canada aggregate industry results must rely on the average effective tax rate, i.e. current taxes as a percentage of net income before taxes.

Ownership and Control Determination

The PMA publishes information annually on the level of Canadian ownership and control of the oil and gas industry in Canada. The methodology and sources of information underlying its analyses are summarized below.

In the process of control determination, the Agency has based its definition on whether Canadian or foreign shareholders have potential control over a reporting enterprise's overall operations. Control is a contractual right conferred upon a person, or group of persons, to direct, within the limitations of relevant statutes, in the present or at some future date, the affairs or management of a company, on a day to day basis or otherwise, usually through the appointment of a majority of a board of directors. Control is not to be confused with managerial responsibility for the firm. The concept of control emerged in order to recognize the separation in modern corporations between managers and shareholders. Shareholders assert control over management through the board of directors and the shareholders' meetings.

Control that is exercised by, for instance, nominating and electing the majority of the directors is active control. Control is just as real when the shareholder with a continuing right to intervene chooses instead, for whatever reason, not to exercise that right. The latter unexercised option to take active control is called potential control. For the purposes of the PMA, the two types of control – active and potential – are equivalent. Both types are called control. The Canadian Business Corporations Act similarly embraces the concept of potential control within its definition of control which refers to sufficient votes, "*if exercised*, to elect a majority of the directors of the body corporate."

While control is generally based on the ownership of 50% or more of voting shares, it is possible for control to be exercised with a smaller ownership block. A person who owns at least 51% of the voting shares is said to have "de jure" control. One who owns less than 50% of the voting shares, but is able to alter the composition of the board of directors and/or management, is said to have "de facto" control. Statistics Canada assigns "de facto" control of a public corporation, for the purposes of the Corporations and Labour Unions Return Act (CALURA), to a person owning at least 20% of the outstanding voting shares when no other two shareholders together own as much as 20%.(1) The PMA methodology for determining control in such cases is consistent with that used by Statistics Canada. "De facto" control may also be conferred upon a person, or group of persons, owning less than 51% of the voting shares of a public or private corporation through several other mechanisms:

(a) *Blocks of voting shares* – Two or more shareholders whose holdings together sum more than 50% of total shares and who generally act in concert.

(b) *A shareholders' agreement* – An agreement among some or all shareholders to vote or act in certain ways in various contingent circumstances, especially in relation to naming directors.

(c) *Options* – A minority shareholder enjoys the right at any time to acquire additional voting shares to raise his holdings to 51% or more of the outstanding voting shares.

(d) *Personal Relationships* – Where two shareholders are related by blood relationship, marriage or adoption, they may be deemed to constitute a voting group.

(e) *Interlocking Directorships* – When corporation A owns at least a minimum percentage of voting shares of corporation B, and is the single largest minority shareholder of corporation B, and both corporations share a large number of common directors, corporation A is said to control corporation B.

For purposes of determining the industry-wide level of control, 100% of the relevant yardstick of the controlled company is assigned to the appropriate control category. Thus, regardless of the percentage ownership of voting rights by non-residents, if the company is effectively controlled by non-residents, then for statistical purposes, 100% of its activities are assigned to the foreign-controlled sector. To illustrate, several integrated companies included in this report, though all foreign controlled, have varying degrees of Canadian ownership (up to 30%). However, when measuring the level of control the entirety of their relevant corporate activities is assigned to the appropriate control sector.

In the case of ownership, that percentage of the relevant yardstick which represents the beneficial ownership of formal equity by non-residents is assigned to the foreign-owned category, while that of Canadian residents is assigned to the Canadian-owned category.

The most commonly used yardsticks are upstream or total petroleum-related revenues (upstream plus downstream). Ownership and control are generally measured on gross revenues recognizing that these best reflect economic activity and that they are a stable proxy for net economic benefits over time. For example, the deduction of royalties from gross petroleum revenues would have little or no impact on the relative distribution of revenue between Canadian and foreign owners.

Other measurement bases such as assets or capital employed do exist but suffer from the deficiencies of relying upon historical 'book' values rather than current market value, and of being subject to the different accounting techniques used in the petroleum industry such as the full cost and successful efforts methods.

The Agency has access to ownership and control information collected under CALURA from those enterprises which report under the EMA. CALURA requires detailed disclosure of ownership information from all owners of blocks of shares equal to or greater than 5% of total voting shares. Should a reporting energy enterprise fail to file a timely return under CALURA, Regulation SOR/85-328 authorizes the Agency to obtain the ownership and control information directly.

(1) *The Ownership, Control, and Country of Control of Corporations*, Statistics Canada, June 4, 1987, p. 8.

Inter-period Comparability of Results

The Canadian Petroleum Industry Monitoring Report presents comparisons of the current reporting period's results with those of previous comparable periods. Such comparisons are sensitive to changes in the list of reporting companies defined as the 'industry', in its analytic groups, i.e. integrateds and refiners, and oil and gas producers, and in the control status of reporting enterprises. To permit valid inter-period comparisons, the Agency consistently fixes industry group membership and control according to the reported information for the current period, and imposes that membership and control on results for the prior reporting period. Where data covering more than two years are presented, the group membership and control is that prevailing at the time of reporting, except for the immediately preceeding period.

Lists of reporting enterprises (i.e. corporations with more than $10 million in assets or sales) are updated each reporting period. Newly qualifying enterprises are added to the industry aggregates and the respective group only when results for two comparable reporting periods are available. Occasionally, enterprises exit from the industry during the current period, by acquisition or wind-up. Prior period results for both the industry and the group presented in the current period's report will reflect the exit of the former reporting enterprise: the enterprise is excluded from the current and the prior period aggregates. Should the exit result from acquisition by a reporting enterprise, the acquired enterprise's prior period results are added to those of the acquiring enterprise regardless of whether the acquired enterprise was in the same analytic group as the acquisitor.

Divestitures or acquisitions by reporting enterprises during the current period may result in an enterprise satisfying the inclusion criteria of an analytic group other than that to which it has been assigned in the prior period's Monitoring Report. For example, where an integrated group member divested itself of its downstream operations during the current period, it would be included in either the senior or junior producer group, depending upon the facts of the matter, for the current period and with that group's aggregate results for the corresponding prior period. It is important to note that all the divesting enterprise's prior period assets and revenues, regardless of the segment of operations, are transferred to the current period analytic group to establish prior period analytic group aggregates.

Similar adjustments to industry and analytic group aggregates are made in cases where ownership switches from Canadian to foreign or vice versa. The current period nationality of ownership determines that of the prior period for purposes of inter-period comparisons. However, in that part of the annual Monitoring Report dealing with ownership and control, the analysis takes into account the changes in the control of the reporting companies as they occur.

Appendix E Profitability Ranges within the Upstream Segment

Differences in rates of return are typical among companies in this as in most other industries. In the case of the petroleum industry, the rate of return on upstream capital employed varies, not only between but also within groups of companies in any given year. Of particular importance in causing variability are the following types of transactions:

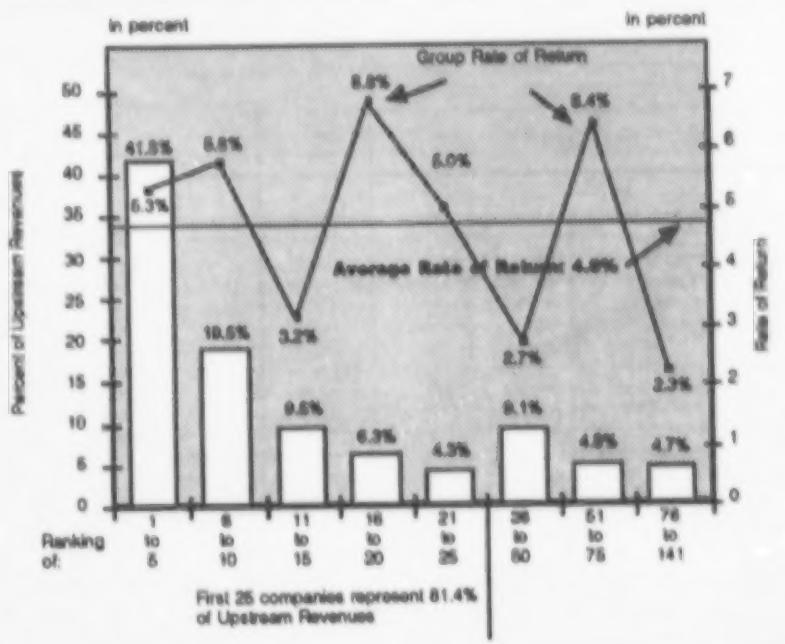
1. Write-downs of assets or gains/losses on the sale of assets;
2. Charges associated with workforce adjustment;
3. Changes in the application of accounting practices; and,
4. Extraordinary gains or losses.

Other reasons for differing profitability include:

1. Different production mix. Companies producing crude oil experienced higher profitability in 1990 than companies producing marketable natural gas. This was due to the crude oil price rise that occurred in the last five months of the year. Also, producers of heavy oil did not do as well as producers of light crude;
2. New entrants into the industry have considerable expenditures, but very little in terms of production;
3. Companies purchasing other companies or assets will show the purchased assets on their books at the purchased price which may be higher than the book value of the acquired company, thereby, increasing the value of their capital employed; and,
4. Companies involved in large projects will increase their capital employed but corresponding revenues may take years to materialize.

Chart 'A' presents data on petroleum companies ranked on the basis of upstream revenues together with their corresponding rates of return on average capital employed. The first 25 companies were aggregated into groups of 5, the next 50 into two groups of 25 and the remaining 66 companies into the last group. Within each ranking of companies, their average rate of return was calculated. The line across the page represents the average rate of return of 4.8% for the total upstream segment of the petroleum industry.

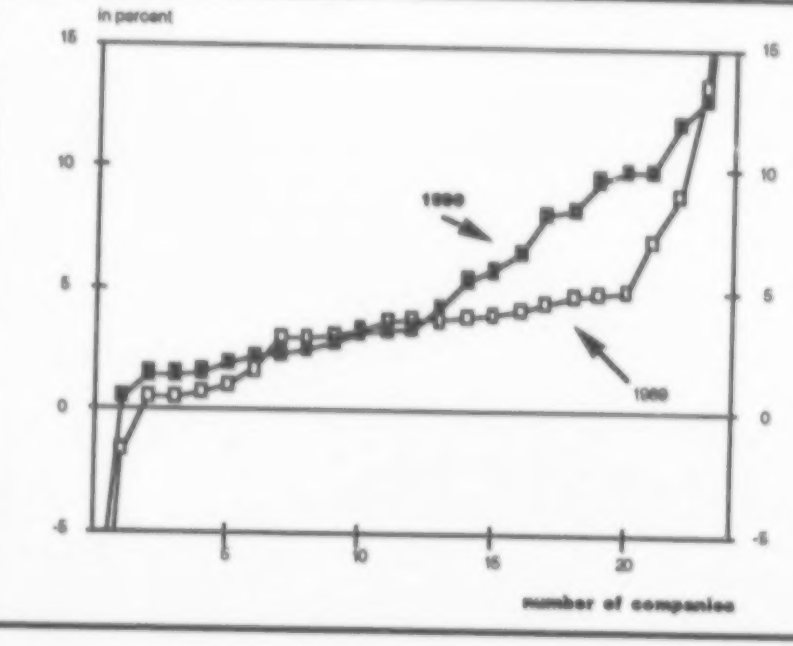
Chart A.
Rates of Return on Average Upstream Capital Employed, and Shares of Upstream Revenues, 1990



The five largest companies in terms of upstream revenues account for over 40% of total revenues and have an average rate of return on capital employed of 5.3%. Within the top 25 companies, the group represented in the ranking of 16 to 20, has the highest rate of return of 6.8% while the group of 11 to 15 has the lowest rate of 3.5%. The group of 66 smallest companies has the lowest average rate of return at 2.3%.

Charts 'B' and 'C' present the rates of return on average upstream capital employed in ascending order for 1989 and 1990. For senior and integrated companies, the range of rates of return varies from negatives lower than 10% to positive returns of over 15%. The average return for this group of companies was 5.2% in 1990, up from 3.9% in 1989.

Chart B.
Rates of Return on Average Upstream Capital Employed in Ascending Order, Integrateds & Seniors



Among the junior companies, the rates of return also vary greatly. The average rate of return for 1990 was 3.8%, up from 0.9% reported in 1989. In 1990, there were about 60 companies with a rate of return below 5%, compared to about 75 companies in 1989.

Chart C.
Rates of Return on Average Upstream Capital Employed in Ascending Order, Junior Companies

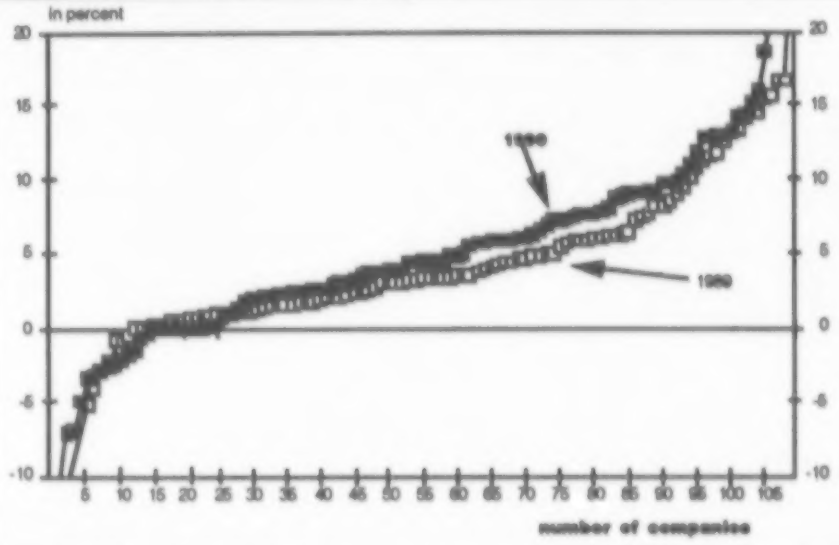
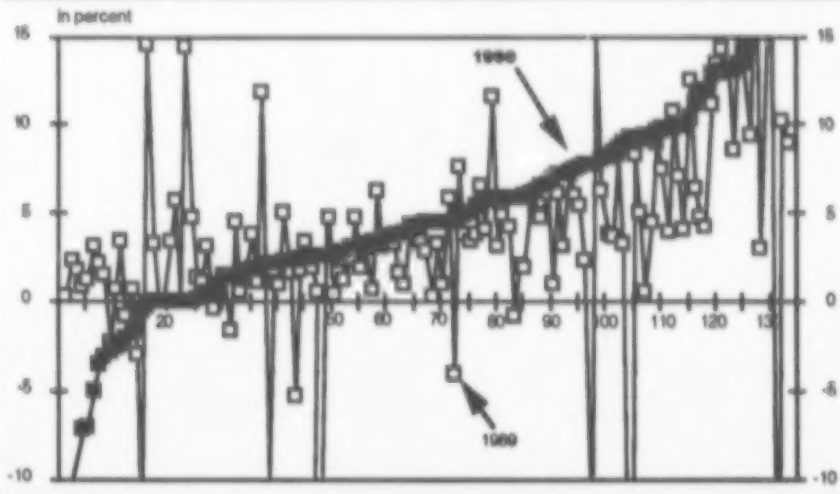


Chart 'D' presents rates of return in ascending order for 1990 together with each company's corresponding result for 1989 to show the often large variability of rates of return between years.

While variability between the two years is to be expected, large differentials are generally the result of unusual or one-time transactions that occurred in either of the two years.

Chart D.
Rates of Return on Average Upstream Capital Employed, 1990 vs. 1989



Appendix F
Reporting Energy Enterprises

Alberta Energy Company Ltd.
Alberta Oil Sands Equity
Altana Exploration Company
Altex Resources Ltd.
Amax Petroleum of Canada Inc.
Amerada Hess Canada Ltd.
American Eagle Petroleums Ltd.
American Trading and Production Corporation
Amoco Canada Petroleum Company Ltd.
Anadarko Petroleum of Canada Ltd.
Anderson Exploration Ltd.
AT&S Exploration Ltd.
ATCOR Ltd.
Atlantis Resources Ltd.
Bamwell of Canada, Limited
Beau Canada Exploration Ltd.
Bow Valley Industries Ltd.
Bowtex Energy (Canada) Corporation
BP Canada Inc.
Braiome Resources Limited
Buttes Resources Canada, Ltd.
Cabre Exploration Ltd.
Canada Northwest Energy Limited
Canadian '88' Energy Corp.
Canadian Conquest Exploration Inc.
Canadian Hunter Exploration Ltd.
Canadian Jorex Limited
Canadian-Montana Gas Company Limited
Canadian Occidental Petroleum Ltd.
Canadian Turbo Inc.
Cancarb Gas Services Limited
Chauvco Resources Ltd.
* Chevron Canada Limited
Chevron Canada Resources Limited
Chevron Standard Limited
CIC Industrial Interests Inc.
Cimarron Petroleum Ltd.
Claude Resources Inc.
CN Exploration Inc.
Co-Enerco Resources Ltd.
Coho Resources Limited
Colonial Oil & Gas Limited
Columbia Gas Development of Canada Ltd.
Conoco Canada Limited
Consolidated Norex Resources Corp.
Conwest Exploration Company Limited
Corexcana Ltd.
Coseka Resources Limited
CS Resources Limited
Czar Resources Ltd.
DEKALB Energy Canada Ltd.
Denison Mines Limited
Discovery West Corp.
Dorset Energy Corporation
Dynex Petroleum Ltd.
Encor Inc.
Enerplus Resources Corporation
Enron Oil Canada Ltd.
Excel Energy Inc.
* Federated Co-operatives Limited
Forest Oil Corporation (Canada)
Gardiner Oil & Gas Limited
Government of Canada
Gulf Canada Resources Limited
Hamilton Brothers Canadian Gas Company
Harvard International Resources Ltd.
Home Oil Company Limited
* Husky Oil Ltd.
* Imperial Oil Limited
Intensity Resources Ltd.
Inuvialuit Petroleum Corporation
Inverness Petroleum Ltd.
* Irving Oil Limited
J.M. Huber Corporation
Joss Energy Limited
Kerr-McGee Canada Ltd.
Kerr-McGee Corporation
Koch Exploration Canada, Ltd.
LASMO Canada Inc.
LASMO Nova Scotia Limited
LL&E Canada, Ltd.
Lone Pine Resources Ltd.
Luscar Ltd.
Maligne Resources Limited
Mannville Oil & Gas Limited
Mark Resources Inc.
* McColl-Frontenac Inc.
MLC Oil and Gas Ltd.
Mobil Oil Canada, Ltd.
* Mohawk Oil Canada Limited
* Moose Jaw Asphalt Ltd.
Morgan Hydrocarbons Inc.
Morrison Petroleums Ltd.
Mosbacher Holding Company
Murphy Oil Company Ltd.
* NewGrade Energy Inc.
* Newfoundland Processing Limited
Norcen Energy Resources Limited
North Canadian Oils Limited
Northstar Energy Corporation
Norwich Resources Canada Ltd.
Nova Scotia Resources Limited
* Novacor Chemicals (Canada) Ltd.
Novalta Resources Inc.
Numac Oil & Gas Ltd.
Ocelot Industries Ltd.
Omega Hydrocarbons Ltd.
OMV (Canada) Ltd.
Opinac Exploration Limited
Orbit Oil & Gas Ltd.
Paloma Petroleum Ltd.
Pan-Alberta Resources Inc.
Panarctic Oils Ltd.
PanAtlas Energy Inc.
PanCanadian Petroleum Limited
Pancontinental Oil Ltd.
Paramount Resources Ltd.
* Parkland Industries Ltd.
Pecten Canada Limited
Pembina Resources Limited
Penn West Petroleum Ltd.
Pennzoil Petroleums Ltd.
* Petro-Canada
Petrorep (Canada) Ltd.
Phillips Petroleum Canada Ltd.
Phillips Petroleum Company Western Hemisphere
Phillips Petroleum Resources, Ltd.
Pinnacle Resources Limited
Placer CEGO Petroleum Division
Poco Petroleums Ltd.
Ranchmen's Resources Ltd.
Ranger Oil Limited
Renaissance Energy Ltd.
Rife Resources Ltd.
Roan Resources Ltd.
Royal Trust Energy Corporation
Saskatchewan Oil and Gas Corporation
Sceptre Resources Limited
* Shell Canada Limited
Star Oil & Gas Ltd.
Summit Resources Limited
* Suncor Inc.
Tarragon Oil and Gas Limited
Telesis Oil and Gas
Texaco Canada Petroleum Inc.

* Denotes companies included in group of 'Integrateds and Refiners'.
All other companies belong to the category of 'Oil and Gas Producers'

Tintagel Energy Corporation
Total Petroleum (North America) Ltd.
Trical Resources Inc.
Trilogy Resource Corporation
Triton Canada Resources Ltd.
Twin Richfield Oils Ltd.
Ulster Petroleums Ltd.
* Ultramar Canada Inc.
Union Pacific Resources Inc.
United Tri-Star Resources Ltd.
Unocal Canada Limited
Voyager Energy Inc.
Wainoco Oil Corporation
Webb International Minerals Inc.
Westar Petroleum Ltd.
Westcoast Petroleum Ltd.
Wintershall Canada Ltd.